

CBO PAPERS

THE COSTS OF EXPANDING THE NATO ALLIANCE

March 1996

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NOTE

Numbers in the text and tables of this paper may not add up to totals because of rounding.

PREFACE

The North Atlantic Treaty Organization (NATO) has made the decision to expand its membership. The alliance has not chosen which nations to admit and thus has not estimated the costs of expansion. The public debate, however, has centered around admitting Poland, the Czech Republic, Slovakia, and Hungary. This Congressional Budget Office (CBO) paper, prepared at the request of the House Committee on International Relations, examines hypothetical options to defend those four nations if they were admitted to the alliance and estimates the cost of undertaking each option.

CBO was aided in formulating the options for expansion by a framework developed by Richard Kugler of RAND. CBO also used information from the U.S. military services, U.S. military commands, the Office of the Joint Chiefs of Staff, the Office of the Secretary of Defense, former war planners, independent defense experts, and federally funded defense think tanks. In keeping with the Congressional Budget Office's mandate to provide objective analysis, this paper makes no recommendations.

Ivan Eland of CBO's National Security Division wrote the paper under the general supervision of Cindy Williams and R. William Thomas. Jeannette Van Winkle of CBO's Budget Analysis Division provided the cost analysis. Frances Lussier and Lane Pierrot provided analytical assistance. Nathan Stacy ensured that the report was factually correct. Frank A. Tapparo of the Logistics Management Institute reviewed the paper's assumptions, options, and content. However, responsibility for the study remains with the Congressional Budget Office.

Paul L. Houts edited the paper, Christian Spoor provided editorial assistance, and Judith Cromwell prepared it for publication.

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SUMMARY

The North Atlantic Treaty Organization (NATO) has lost its primary mission--to deter or defend against an attack on Western Europe by the Soviet-led Warsaw Pact alliance. Because of the breakup of both the Soviet Union and the Warsaw Pact, NATO must now redefine its role. As part of that redefinition, the leadership of the alliance has decided to expand its membership. After their January 1994 NATO summit, the heads of state and government of the NATO countries stated that they "expect and would welcome NATO expansion that would reach to democratic states to our East." Some of the alliance's former Warsaw Pact adversaries are actively seeking membership in NATO.

The alliance has expanded four times before. The first instance was in 1952, when Greece and Turkey were admitted as members. West Germany became a member of NATO in 1955, and Spain joined the alliance in 1982. When Germany was reunited in 1990, the alliance added territory to defend but no new members.

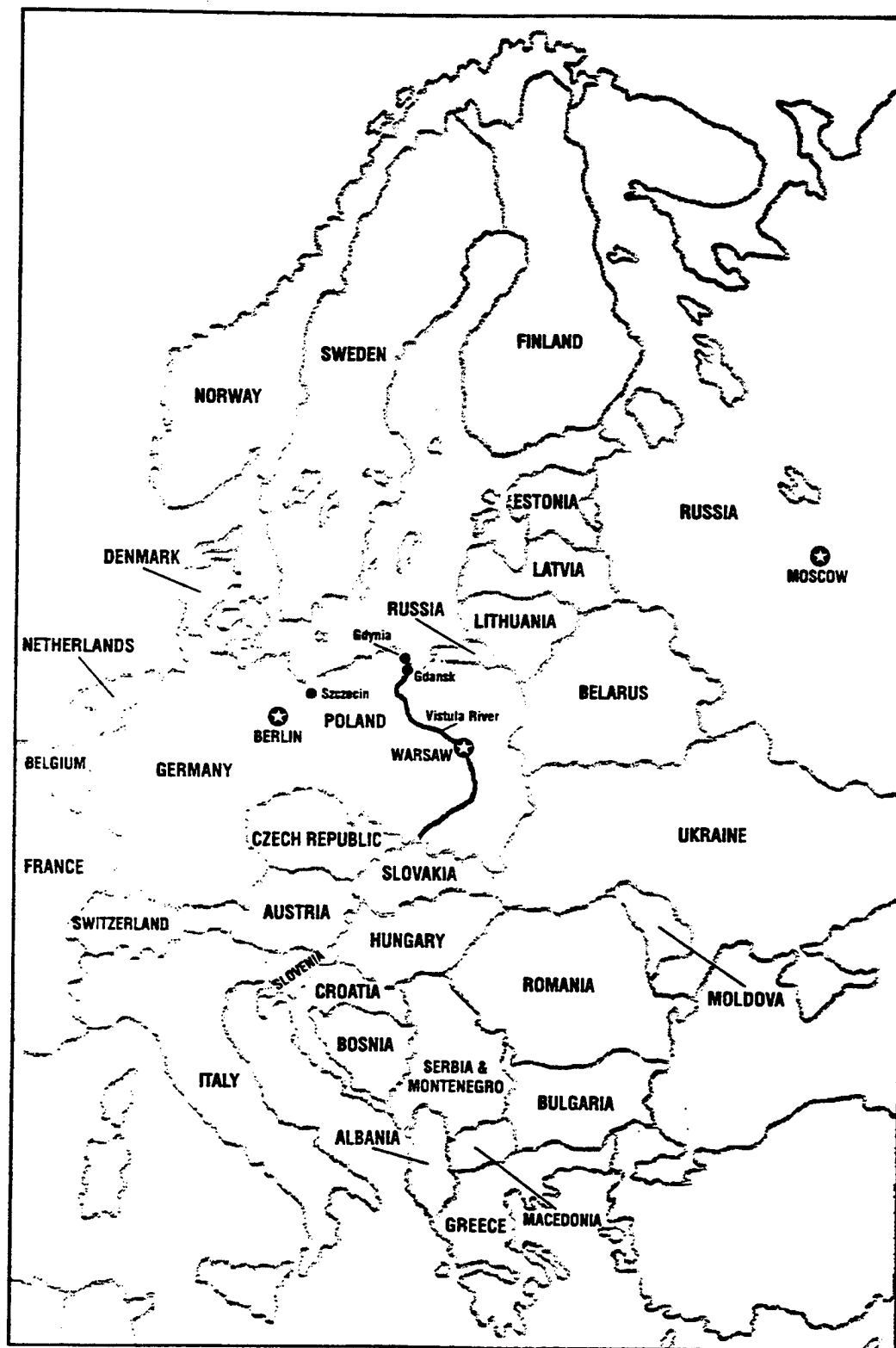
The next expansion--if any--will be likely to involve East Central European nations. The limited public debate so far has focused on the merits of admitting Poland, the Czech Republic, Slovakia, and Hungary. (The Congressional Budget Office uses the label "Visegrad nations" as a shorthand to refer to those countries. The label comes from Visegrad, Hungary, where the four nations met in 1991 to pledge regional cooperation.) In the Congress, several pieces of proposed legislation have been introduced--including the National Security Revitalization Act (designed to enact into law the national security provisions of the Contract with America)--that implicitly or explicitly give preference to those four nations for early admission.

Other possible candidates for admission have been mentioned. They include Slovenia, Romania, Ukraine, and the Baltic states of Estonia, Latvia, and Lithuania (Summary Figure 1 shows a map of the region). Some proponents of expanding NATO--albeit a minority--have even suggested that Russia be invited to join.

THE FUTURE OF NATO

Expanding NATO is only one possible future for the alliance. Proposals for changing NATO range from dissolving it to expanding its membership widely and rapidly.

SUMMARY FIGURE 1. MAP OF CENTRAL AND EASTERN EUROPE



Proponents of dissolving NATO believe that the alliance is attempting to perform missions that are no longer needed or that it is not suited to perform. According to this view, the threat of a military superpower (the Soviet Union) attacking and controlling the industrial heartland of Europe--and its immense economic resources--has now disappeared. Consequently, the military mission of NATO is no longer relevant. Nor is NATO needed to prevent Germany from reverting to nationalistic defense and foreign policies. Germany is now a democratic state that has been reluctant to take any military action outside its own borders. Without the unifying threat of a Soviet attack, agreement on whether and how to undertake peacekeeping and crisis management operations outside the treaty area will be difficult because of the diverging national interests of the members. Furthermore, in a post-Cold War Europe, military blocs should be replaced with Europeanwide organizations that promote economic and political stability--for example, the European Union and the Organization for Security and Cooperation in Europe.

A second school of thought argues for retaining NATO as is and expanding it only if Russia becomes a threat to its neighbors. Proponents argue that NATO can achieve its goals without expanding the alliance. Because the West will be well aware of any attempt by Russia to regain its former hegemonic role in East Central Europe, the alliance could be kept as a hedge in its present form and expanded quickly if needed. Expanding NATO now into East Central Europe--a potentially volatile region of limited economic and diminished strategic importance--could threaten to embroil the alliance in conflicts unnecessarily. Furthermore, economic development in this region, fostered by admitting East Central European countries into the European Union, would enhance stability more than would membership in NATO. In addition, expansion might make a future threat from Russia self-fulfilling--that is, it might increase the power of internal antidemocratic forces or cause Russia to reject arms control agreements.

Others argue for expanding NATO unconditionally. In their view, granting membership to the nascent democracies of East Central Europe would promote stability in that region. It would provide those countries with a security umbrella under which to consolidate their political and economic reforms. Expanding membership would lessen the chance of another major conflict in Europe by filling the power vacuum existing in the territory between Russia and Germany. Expansion would also consolidate the gains of the Cold War and make NATO more relevant than its current role of defending borders that are no longer threatened.

Some proponents of expansion argue for caution and patience, fearing that rushing into expansion could provoke Russian leaders toward a hard-line position. Others argue just the reverse, calling for expanding NATO right now while Russia is militarily, economically, and politically weak.

Finally, some observers want to expand the alliance to include Russia. Most advocates of this policy, like those who wish to dissolve NATO, believe that the current regime for European security is outdated in a post-Cold War world. In their view, Russia, because of its importance as a European power, should be included in any post-Cold War security arrangement. That policy would transform NATO from a military alliance with a narrow membership to a Europeanwide political organization that emphasizes political dialogue, crisis management, peacekeeping, and confidence-building among nations.

MILITARY OPTIONS FOR NATO EXPANSION

Despite the spectrum of views on the future of NATO, recent Congressional debate has centered on those alternatives that would expand the alliance without including Russia. Because the debate has centered around admitting the Visegrad nations, the Congressional Budget Office's (CBO's) analysis assumed that those nations would be the first new members to enter.

Article V of the North Atlantic Treaty commits alliance members to assist another member if attacked. Giving the Visegrad states that same commitment would necessitate that NATO plan a defense for them. According to NATO and U.S. officials, such planning has not yet been done and the costs of such a defense have not been estimated.

It is difficult to determine what NATO would need to do to provide an adequate defense for the Visegrad nations. In the current environment, NATO can probably spend as much or as little as it likes to undertake expansion. If the alliance merely admitted new members and made no military preparations to defend them if attacked, the cost in peacetime of making such a political commitment would be negligible. If military preparations were made, however, greater costs would be incurred. If more serious threats arose in the future--for example, an aggressive and militarily potent Russia--the alliance might need to spend even more.

Because of the uncertainty of future threats and the many possible ways to defend the Visegrad states, CBO examined five illustrative options to provide such a defense. Each option builds on the previous one in scope and cost. The analysis explores the military value of each option and determines what equipment and infrastructure would be needed to carry it out. It also develops a rough estimate of each option's costs during peacetime and how those costs would be shared among the United States, current NATO allies, and new members of the alliance.

The first option that CBO explores--the least ambitious and costly of the five--might help a Visegrad state to defend itself against a border skirmish or limited attack by a regional power. The option strengthens Visegrad defense forces to be the backbone of the defense plan and enables NATO reinforcement if needed. It assumes that the Visegrad states will pay most of the costs of those improvements.

CBO's other four more ambitious and costly options focus on the greater threat of a resurgent Russia. They involve various methods of providing a defense, an increase in military and political strength with each successive option, and a heavier cost burden on existing NATO allies than Option I would entail. Option II moves NATO air power east when a Visegrad nation is under threat from attack. That option reflects the school of thought arguing that air power now dominates the modern battlefield and can decisively halt an attack by enemy ground forces. Option III reflects the more traditional view that substantial friendly ground forces are needed to defend territory against their enemy counterparts. Consequently, it adds NATO ground power to the flow of forces east. Option IV prepositions military equipment on the territories of the Visegrad states so that troops can be flown in to operate it during a crisis. Thus, that option allows heavy NATO ground forces to arrive at the front faster during the most dangerous early stages of a crisis when local forces are in the most danger of being overrun. Option V, the most ambitious and costly of the alternatives, permanently stations a limited number of NATO forces (equipment and personnel) in the Visegrad states. Those forces would provide an early defense and also act as a stronger political symbol of NATO's security guarantee than would prepositioned equipment.

CBO estimates that costs for the five illustrative options over the 15-year period from 1996 through 2010 would range from \$61 billion to \$125 billion (see Summary Table 1). Of that total, the United States might be expected to pay between \$5 billion and \$19 billion. Those U.S. costs might be manageable but only if--as both NATO and CBO assume--the Visegrad nations themselves bear a substantial portion of the costs of expansion. Existing NATO members seem reluctant to increase their defense budgets to finance expansion. Even under the least ambitious option, if Visegrad nations also proved unable or unwilling to increase their defense spending significantly (an estimated 60 percent increase)--as seems possible--then either the costs for existing members would have to increase substantially or tasks needed for an adequate defense of those nations might be left undone. The defense budgets of the Visegrad nations are small, their economies are in transition from communism to capitalism, and public opinion polls show that their populations do not support increases in the proportion of government spending devoted to defense. If basic tasks needed for an adequate defense were left uncompleted, a viable NATO security guarantee would be questionable.

SUMMARY TABLE 1. **MILITARY OPTIONS TO EXPAND THE NATO ALLIANCE
AND THEIR COSTS (In billions of 1997 dollars)**

Option	Cost to the United States	Cost to NATO Allies	Cost to New Members	Total Cost
Enhance Visegrad Defense and Facilitate NATO Supplemental Reinforcement	4.8	13.8	42.0	60.6
Project NATO Air Power Eastward to Defend the Visegrad States	4.6	10.3	3.6	18.6
Project Power Eastward with NATO Ground Forces Based in Germany	3.6	20.3	6.2	30.1
Move Stocks of Prepositioned Equipment to Visegrad States	0.3	0.9	0.1	1.2
Station a Limited Number of Forces Forward	5.5	8.7	0	14.2
Total	18.9	54.0	51.8	124.7

SOURCE: Congressional Budget Office.

NOTES: The costs shown for options after the first one are incremental increases above those of the previous option. Costs were estimated for the 1996-2010 period.

NATO = North Atlantic Treaty Organization.

Option 1: Enhance Visegrad Defense Forces and Facilitate NATO Reinforcement

This option focuses on improving the military forces of the Visegrad states. Upgrading such forces, making them more compatible with NATO forces, and improving their military-related infrastructure would help the alliance resupply these states when under attack and even send reinforcements if needed. Because of the limited capabilities of the Visegrad militaries today, however, those improvements would be costly and would take a number of years to make.

Under this option, the Visegrad militaries would improve their facilities for command, control, communications, and intelligence. They would upgrade air defenses and integrate them with the NATO air defense system. This option also

assumes that the Visegrad militaries would upgrade older weapons and eventually buy new weapons in some critical areas, including new Western fighter aircraft, weapons to destroy tanks, electronic warfare equipment, and precision-guided munitions.

Current NATO members would also improve their military capabilities. Right now, distance limits the ability of Western European air forces to intervene in a conflict in East Central Europe. This option assumes that Western European members of NATO would acquire a fleet of tanker aircraft that would permit allied tactical aircraft to operate from their bases in Western Europe in support of the Visegrad militaries.

Another element of the program would be to improve infrastructure in the Visegrad states: upgrading roads, rails, and ports; building training facilities; standardizing fueling systems and extending pipelines; and building facilities to store fuel and ammunition. Those improvements would further the reinforcement of the Visegrad states by NATO. Once facilities were available, NATO forces would engage in training exercises with the Visegrad militaries, and Visegrad military officers would be taught English as well as NATO doctrine and procedures.

In addition to those general measures, this option envisions a number of improvements directed solely at the Polish military. Those include adding both combat and combat-support forces to make the Polish army more mobile, as well as improving the Polish navy's antisubmarine and mine-clearing capabilities.

Advantages and disadvantages to this option exist. The main advantage is that this option is the lowest-cost approach to expansion that CBO examined. In an absolute sense, however, the costs are hardly small. CBO estimates that this approach would require total spending of \$60.6 billion during the 1996-2010 period. Although about 70 percent of that total--some \$42 billion--is assumed to be borne by the Visegrad countries themselves, the costs to the United States are estimated at \$4.8 billion and the costs to the other NATO allies at about \$13.8 billion. The major disadvantage is that such efforts might only allow the Visegrad states to deter and defend themselves against lesser threats, such as a border skirmish with a neighbor or a limited war with a regional power. With the current low levels of threat to this region, however, this lower-cost approach might be adequate.

Yet the Visegrad states might not be able to afford even this least ambitious option. The budgets for military investment in the Visegrad nations are currently low. If their budgets cannot be increased as the above discussion assumes, a subset of those improvements may have to be selected. The most critical improvements are increasing training and exercises; enhancing command, control, communications, and

intelligence; and improving air defenses and integrating them with those of NATO. Although that subset of items would improve the ability of the Visegrad militaries to operate with NATO forces, it would still only marginally improve the defenses of those nations.

That subset of Option I is estimated to cost \$21.2 billion during the 1996-2010 period. Of that amount, CBO estimates the cost to the Visegrad nations at \$15.6 billion, the cost to the United States at \$1.9 billion, and the cost to the European allies at \$3.7 billion.

Option II: Project NATO Air Power East to Defend Visegrad States

In Option I, NATO air power, if needed to reinforce Visegrad forces, was assumed to operate from bases in Western Europe (principally Germany). In this option, NATO aircraft would fly to and operate from bases in a Visegrad nation when that country was under threat. Flying from prepared bases--called colocated operating bases, or COBs--would increase the number of sorties aircraft could fly and the number of weapons they could carry. According to some Air Force planners, preparing a Visegrad nation's air bases to receive NATO aircraft in time of crisis also sends a stronger signal of NATO's commitment to defend that country.

Nevertheless, this strategy of projecting air power forward poses certain disadvantages. Creating COBs is more costly and probably more threatening to Russia. Operating from German bases, NATO aircraft are less likely to be destroyed: Germany is militarily harder to attack than the Visegrad nations, and doing so would expand the conflict politically. Air Force officials also note that air operations conducted from Germany might be more effective because of its better support structure, including better communications and access to national intelligence sources.

To project air power east, NATO authorities would create COBs sufficient to house 11½ NATO air wings--eight of 10 German air wings (two air wings would remain in Germany for air defense), one British air wing stationed in Germany, and two and one-half air wings of American aircraft stationed in Europe. Existing Visegrad air bases would be modified by adding new command, control, and communications equipment and modern air traffic control facilities. Additional hangar space (hardened shelters) and upgraded barracks, mess halls, and maintenance and repair shops would be required. Runways would need repair and reinforcement.

In addition, NATO countries would stockpile ammunition and fuel for 30 days near the bases. The NATO pipeline would be extended to the COBs. Adding

mobile engineers, maintenance units, medical units, and other support assets would enhance the ability of allied aircraft to project power.

CBO estimates that this option of shifting NATO air power to the east would cost an added \$18.6 billion (above the costs of Option I) during the 1996-2010 period. Of that amount, costs to the United States are estimated at \$4.6 billion, costs to the NATO allies at \$10.3 billion, and costs to new members at \$3.6 billion.

Option III: Project Power Eastward with Ground Forces Based in Germany

This option adds ground forces to the air power flowing east to defend a Visegrad nation under threat. Ten NATO divisions based in Germany would move east to facilities in the Visegrad nations--six of seven German divisions, one French division, one British division, one-third of a Belgian division (one brigade), one-third of a Dutch division (one brigade), and one and one-third U.S. division equivalents (four brigades). This option also relies on five sets of prepositioned stockpiles of weapons (equivalent to five brigades) located in Western Europe. In time of crisis, the personnel to operate this equipment would be flown in from the United States. After airlifted personnel had readied the equipment, it would be driven overland to a Visegrad state. Therefore, a total of 11 $\frac{2}{3}$ divisions would be available initially to defend a Visegrad state.

Adding ground forces to help defend the Visegrad nations offers several advantages. First, planning to use ground forces is often considered a greater symbol of commitment to defend an ally than is planning to use only air power. Second, a stronger defense can be mounted when both air and ground forces are used because combat power is multiplied. Third, although NATO and Visegrad aircraft and ground forces might be able to stop an attack, a counteroffensive to regain any lost territory might be difficult without using NATO ground forces.

Adding ground forces to the air power flowing east also has several disadvantages. First, along with the increased political commitment can come increased casualties. Second, the expenses of building reception facilities for ground forces in the Visegrad states make the cost of expansion greater.

Adding ground forces to the air power flowing east would require NATO to improve the mobility and firepower of non-U.S. allied forces. They need more artillery, air defense, and helicopters to lift troops. They also need more logistics and communications capabilities, as well as mobile hospitals.

As just mentioned, this option would also create reception facilities for Western ground forces in the Visegrad states. Existing military facilities in those nations might be modified for that purpose. Reception facilities include rudimentary barracks and mess halls to station forces temporarily during a crisis, rail sidings and facilities for unloading train cars, facilities for maintaining equipment, hangars for helicopters, and parking lots to rearrange equipment from a transportation mode into fighting units. Reception facilities at air bases include extra hangars for aircraft and warehouses to store incoming material. Moreover, NATO would extend its fuel pipeline to all such staging and marshaling areas and would stockpile fuel and ammunition for 30 days near such facilities. In addition to those investments, this option's costs include those for conducting more regular large-scale exercises with NATO forces that would flow east in time of crisis (in contrast with the periodic exercises in Option I).

CBO estimated that the total cost to add ground forces to the air power flowing east would be \$30.1 billion. Of that amount, the cost to the United States is estimated at \$3.6 billion, the cost to NATO allies at \$20.3 billion, and the cost to new members at \$6.2 billion.

Option IV: Move Stocks of Prepositioned Equipment East

Instead of transporting forces generated from five sets of prepositioned equipment overland from Western Europe in time of crisis (as in Option III), the stocks of equipment could be permanently restationed near air bases in the Visegrad states. During a crisis, troops from the continental United States would fly directly to those air bases to join their equipment.

This approach to reinforcing the Visegrad states has a number of advantages. Stationing the prepositioned equipment in the Visegrad states would allow the five U.S. brigades to respond to a threat in those nations more quickly. The move would save the time needed to transport the equipment overland through Western Europe.

But there are disadvantages as well. With the end of the Cold War, the United States restationed prepositioned equipment from Germany to locations nearer Dutch and Belgian ports so that it could be shipped quickly to points of crisis outside the North Atlantic Treaty area. Restationing it instead to the Visegrad states could make such "out-of-area" operations slower and more difficult. That dilemma may illustrate a larger conflict between the goal of admitting new members and tailoring forces to defend them and the goal of responding to out-of-area crises quickly. In addition, Russia might view the prepositioning of equipment in the Visegrad states as a threatening gesture.

CBO estimated that the added costs of moving the equipment east and building storage and maintenance facilities for it would total \$1.2 billion. Of that amount, the cost to the United States is estimated at \$300 million, the cost to the NATO allies at \$900 million, and the cost to new members at less than \$100 million.

Option V: Station a Limited Number of Forces Forward

CBO's most ambitious option would involve permanently stationing limited numbers of NATO forces on the territories of new member states. Option V assumes specifically that two and two-thirds division equivalents of ground forces (of mixed nationalities) and one British and one American air wing--all now based in Germany--would be permanently restationed in the Visegrad states. If a Visegrad state was threatened, however, reinforcements would continue to flow east from their bases in Germany and other parts of Europe.

CBO did not analyze an option to station large numbers of forces in the Visegrad states for a number of reasons. In an environment in which both the threat and the threatened nation are uncertain, stationing such large forces forward might lead to an inflexible defense. The lack of north-south roads in the Visegrad states and vulnerable mountain passes in Slovakia might preclude shifting forces from their permanent stations to the ally being attacked. Russia would probably react strongly to a large permanent presence by NATO forces in the Visegrad states. In fact, the deterioration in relations that such a move would precipitate could well worsen rather than improve security. Also, permanently deploying large numbers of forces would require either stationing German forces on foreign soil or using more troops from other allies, including the United States. Finally, the cost of facilities to support permanently stationing large numbers of forces would probably be prohibitive.

In a time of little and uncertain threat, stationing a smaller number of forces forward and holding the bulk of forces in Germany as a mobile reserve to reinforce any Visegrad nation under threat of attack might provide a more flexible defense. Russia might still have an adverse reaction to this smaller forward contingent, but it would probably be less severe than if large numbers of forces were stationed forward. Also, stationing only a small number of non-German forces in these new member states would send a political signal of NATO's commitment to defend them, while limiting costs, fears of renewed German expansionism, and the number of allied troops stationed on foreign soil.

If a decision was made to base small numbers of forces permanently in the Visegrad states, they would probably be stationed at local bases made available by the post-Cold War reduction in Visegrad military forces. Based on unclassified

information from U.S. intelligence agencies, the poor condition of those bases would probably require extensive rehabilitation of existing facilities and many new ones to bring them up to Western standards.

In short, to base forces permanently in the Visegrad nations would require a considerable investment on the part of NATO. Posts and air bases intended for Western forces would require much more extensive facilities than the spartan quarters envisioned in Options II and III, which were for use only in a crisis. NATO members would need to build modern barracks, mess halls, commissaries, schools, hospitals, family housing, and recreational facilities for the ground and air forces and their dependents who would relocate there.

CBO estimated that the added cost to move a limited number of air and ground forces from Germany to the Visegrad nations and station them permanently would be \$14.2 billion. Of that amount, the cost to the United States is estimated at \$5.5 billion, the cost to current NATO allies at \$8.7 billion, and the cost to new members a negligible amount.

CBO's military options were designed with the current security situation in East Central Europe in mind. However, in the unlikely event that Russia abrogated its commitments under the Treaty on Conventional Forces in Europe, began to increase the size of its armed forces substantially, and undertook a very aggressive foreign policy toward the East Central European region, the NATO countries would probably have to incur the significant costs of permanently stationing large numbers of forces there to guarantee an adequate Article V defense of the Visegrad states.

EXPANDING NATO BEYOND THE VISEGRAD STATES

Slovenia, Romania, Ukraine, Estonia, Latvia, and Lithuania are often mentioned in the public debate as candidates for entry after the Visegrad states. Yet, with the exception of Slovenia, most of those nations would be difficult or costly to defend. Slovenia, a small mountainous state in the former Yugoslavia, could probably be defended by local forces until ground and air forces based in neighboring Italy--including two squadrons of U.S. aircraft--could reinforce the country.

In contrast, Romania and Ukraine could be very difficult to defend. They are far from NATO forces based in Germany. Unlike Option III to defend the Visegrad states, for example, NATO would have more difficulty moving ground forces east from their bases quickly if those nations were threatened. Therefore, stationing substantial quantities of troops there could be necessary.

The Baltic states of Estonia, Latvia, and Lithuania would likewise be difficult to defend. Lacking the strategic depth to trade space for time, the small forces of those nations or any NATO forces stationed there could be quickly overwhelmed by the large Russian forces in the area. NATO might then need to launch a risky amphibious assault backed by carrier aviation to regain lost territory in a region containing substantial Russian air power. (See Appendix A for a more detailed discussion of the implications of expanding NATO to include these nations.)

CONCLUSION

The costs to the United States and its current allies of expanding alliance membership might be manageable, but only if new members paid a substantial portion of the expenses. Most existing NATO nations, including the United States, seem reluctant to increase defense spending substantially to finance such costs. With their economies in transition from communism to capitalism, however, new members may not be able to afford to assume such a burden either. In that case, existing NATO members would need to provide substantially more financial assistance to new members. If they did not do so, even basic tasks needed to undertake expansion might not be completed, leading to a NATO security guarantee of questionable effectiveness.

CHAPTER I

INTRODUCTION

When the North Atlantic Treaty Organization (NATO) was formed in 1949, its primary mission was to present a common front should the Soviet Union attack any NATO member. In responding to the creation of NATO, the Soviet Union established the Warsaw Pact alliance, and thus the dividing lines of the Cold War were drawn.

The disintegration of the Soviet Union and the demise of the Warsaw Pact are now prompting NATO to redefine its mission. Historically, NATO provided a way to keep the United States engaged in European affairs and to prevent Germany from reverting to nationalistic foreign and defense policies, which were ancillary but unstated goals of the alliance. Those goals have now assumed greater importance as the primary mission has waned. In addition, NATO has begun to assume responsibility for military operations outside of its own geographical boundaries. Those operations include peacekeeping and crisis management, such as the recent NATO air strikes in Bosnia and the subsequent peacekeeping mission.

Expanding the organization's membership is a key element of redefining NATO's mission. Several former Warsaw Pact adversaries--now reforming their political and economic systems--are actively seeking membership in NATO. Some proponents of expanding NATO argue that if the organization does not expand its membership and missions, it will lose its relevance in the post-Cold War world. Putting it bluntly, they argue that NATO must "expand or die."

In fact, the alliance has expanded on four previous occasions. The first was in 1952, when Greece and Turkey became members. In that case, the United States government was seeking to counter a perceived threat to those countries from the Soviet Union. The second instance was the addition of the Federal Republic of Germany in 1955, and the third was the entry of Spain in 1982. When Germany reunited in 1990, the alliance added territory to defend but admitted no new members.

Further expanding the alliance has become the official policy of both the Administration and NATO. At the January 1994 NATO summit, the communique of the heads of state and government stated that they "expect and would welcome NATO expansion that would reach to democratic states to our East." President Clinton has declared that the question is not whether enlargement will happen, but rather when and how.

Disagreement exists in the alliance, however, on the pace of expansion. In January 1994, under the leadership of U.S. Secretary of Defense Les Aspin, NATO adopted the Partnership for Peace (PFP) program. That program is designed to bring nations of the former Soviet Union and Warsaw Pact (called partners) into closer military cooperation with the alliance and in some cases to serve as a precursor to formal membership. The PFP program offers the militaries of former communist states ways to operate with NATO by adopting some compatible equipment and procedures and by participating in multilateral exercises (peacekeeping, humanitarian, and search and rescue operations). PFP also provides some of the countries with an avenue to demonstrate that they are ready to join the alliance politically and militarily.

Although PFP was originally designed to relieve the pressures for expansion, the Clinton Administration eventually began to advocate that enlargement move forward. Although all of NATO's other members agreed to enlarge the alliance, many were less enthusiastic about it and wanted the process to proceed more slowly. As a compromise, NATO nations agreed to conduct an analysis of why the alliance should be enlarged and how it should be done. That analysis, titled *Study on NATO Enlargement*, was released in September 1995.¹

According to a press report, foreign and defense ministers from the alliance recently decided to begin a protracted dialogue with countries interested in membership while activities under PFP are intensified.² The opinions of several diplomats at NATO coincided with this report; they predicted that no decision would be made on whom to admit or when to admit them until at least 1997.

Although NATO has not officially decided which nations will join and when, the limited public debate on NATO expansion to date has focused on admitting Poland, the Czech Republic, Slovakia, and Hungary. (The Congressional Budget Office uses the term "Visegrad nations" as a shorthand to refer to those countries. The label comes from Visegrad, Hungary, where the four nations met in 1991 to pledge regional cooperation.) Those nations are geographically closest to NATO and, for the most part, have undertaken significant political and economic reform. (See Summary Figure 1 for a map of the region and Appendix B for a summary of the security situation of those nations.) In the Congress, several bills have been introduced--including the original version of the National Security Revitalization Act

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1. North Atlantic Treaty Organization, *Study on NATO Enlargement* (Brussels: NATO, September 1995).
 2. Rick Atkinson, "French Pledge Greater Role in NATO," *Washington Post*, December 6, 1995, p. A-28.

(implementing the national security provisions of the Contract with America)--that implicitly or explicitly give preference to the Visegrad nations for admission.

Other nations of Eastern Europe are often cited in the public debate as possible candidates for later admission--including Slovenia, Romania, Ukraine, and the Baltic states of Estonia, Latvia, and Lithuania. Some proponents of expanding NATO--albeit a minority--have even urged inviting Russia to join. In any case, all of the calls for expansion are part of a larger spectrum of views on the future of NATO.

CHAPTER II

VIEWING THE FUTURE OF NATO

The public and legislative bodies of the North Atlantic Treaty Organization nations have not reached any consensus on how, when, or even whether to expand the alliance. Because the Cold War ended and NATO is redefining its mission, there exists a wide spectrum of views on the alliance's future. Proposals range from dissolving the organization to expanding it widely and rapidly. The following sections summarize the main arguments advanced by their proponents.

NATO'S MISSION HAS ENDED: TERMINATE THE ALLIANCE

According to one view, the end of the Cold War made NATO's primary mission--defending against a Warsaw Pact attack--obsolete. The threat of a rival superpower (the Soviet Union) attacking and controlling the industrial heartland of Europe and its immense economic resources has disappeared. In the view of some analysts, in seeking to redefine its role, the alliance is attempting to undertake missions that are no longer needed or for which it is not well suited. Using NATO to justify keeping U.S. military budgets high as well as keeping U.S. troops in Europe is expensive and unnecessary. Moreover, according to that view, using NATO to keep Germany from reverting to nationalistic foreign and defense policies is also unnecessary because Germany now has a fairly small and declining defense budget and a nonexpansionist foreign policy.¹

In the view of these critics, NATO, an organization that makes decisions by consensus, is not well suited to assist in peacekeeping and crisis management in areas outside its geographic boundaries. Such missions are the most likely scenarios in a post-Cold War world. Without the unifying threat of a Warsaw Pact attack on alliance territory, the interests of NATO allies will frequently diverge in such conflicts. For example, because of diverse views and national interests, the NATO allies had great difficulty agreeing on a course of action in Bosnia. Furthermore, as an organization developed for collective defense, NATO does not have the means to address the political and economic problems that cause ethnic conflicts.

1. Ted Galen Carpenter, *Beyond NATO: Staying Out of Europe's Wars* (Washington, D.C.: Cato Institute, 1994), pp. 6, 36-37, 39, 112, 117-119.

In a post-Cold War world, critics of NATO believe that traditional military alliances should be replaced with more appropriate Europeanwide organizations that promote economic and political stability. Those organizations include the European Union (EU), which seeks the economic integration of Europe, and the newly strengthened Organization for Security and Cooperation in Europe, which emphasizes preventing conflicts, monitoring human rights, and peacekeeping. (One analyst argued that the Western European Union--the defense arm of the European Union--could supplant NATO in dealing with the regional conflicts likely to arise in Europe.)² Finally, keeping NATO only causes Russia to feel more isolated. In sum, those critics believe that, in a post-Cold War world, NATO is outdated.

WITHOUT A RESURGENT RUSSIA, RETAIN NATO IN ITS PRESENT FORM

Other analysts would prefer to leave the NATO structure unchanged. In their view, NATO does not need to expand to justify preserving an active U.S. military presence in Europe, keeping Germany in check, and taking on new out-of-area peacekeeping and crisis management missions.

According to this view, NATO, in its present form, acts as a counterweight to Russia's nuclear arsenal and remains a hedge against any aggressive behavior that might reemerge from that nation. Proponents of this view believe the West would have years of warning about such a resurgent military threat to East Central Europe.³ They argue that Russia is currently not a threat to the region and is not significantly increasing its military capabilities. If needed, the protection of NATO's military could always be quickly extended to a threatened nation.⁴

Article V of the North Atlantic Treaty guarantees that if a NATO member is attacked, the other alliance members will come to its assistance. Expanding the alliance now, some believe, would threaten to embroil the United States in conflicts in a changing and potentially unstable region that has traditionally not been considered strategic to the West.⁵ No military effort, for instance, was made to roll back the Soviet occupation of the East Central European region after World War II.

2. Ibid., pp.124, 135.

3. Senator Sam Nunn, *Congressional Record*, October 10, 1995, p. S14847.

4. Michael Brown, "The Flawed Logic of NATO Expansion," *Survival*, vol. 37, no. 1 (Spring 1995), pp. 39, 41-42, 48.

5. Benjamin Schwarz, *NATO at the Crossroads: Reexamining America's Role in Europe* (Santa Monica, Calif.: RAND, January 1994), p. 4.

An Article V commitment to these new members effectively extends NATO's nuclear guarantee to them. One view argues that this guarantee lacks credibility because the United States would not risk a nuclear counterattack on its homeland to provide a nuclear shield for East Central European nations.⁶

Critics of expansion suggest that it might rekindle the Cold War by "drawing a new line in Europe" farther to the east. Expansion would make Russia feel threatened and more aggressive, spur it to undertake a military buildup, and undermine its internal pro-Western reform movement.⁷ Expansion could alter the balance of power in Europe against Russia, causing it to reject arms control agreements--abrogating the Conventional Forces in Europe (CFE) Treaty or failing to ratify the second Strategic Arms Reduction Talks (START II) Treaty--or even to build up its armed forces. If it could not afford to build up conventional forces, it might put its strategic nuclear forces on a higher state of alert or renew deployment of tactical nuclear weapons.⁸

In other words, according to this view, expanding NATO might make an autocratic and aggressive Russia a self-fulfilling prophecy. Any added security achieved by expanding NATO would be more than offset by undermining the most important bilateral relationship the United States has with any country in the world. In contrast, if NATO declared that it would expand only if Russia became aggressive, Russia would have an incentive to refrain from doing so.⁹

In addition, analysts point out that admitting only some East Central European countries into the alliance might have ill effects on those left out. Nations that might potentially be excluded--the most important of which is Ukraine--might fear being caught on the other side of a newly divided Europe.¹⁰ Those nations would then have little incentive to continue their political and economic reforms and

6. Karl-Heinz Kamp, "The Folly of Rapid NATO Expansion," *Foreign Policy*, vol. 98 (Spring 1995), p. 124.

7. Brown, "The Flawed Logic of NATO Expansion," pp. 41-42.

8. Senator Sam Nunn, *Congressional Record*, October 10, 1995, p. S14847.

9. Ibid.

10. Charles Kupchan, "Expand NATO--And Split Europe," *New York Times*, November 27, 1994, p. A-21; Michael Mandelbaum, "Preserving the New Peace: The Case Against NATO Expansion," *Foreign Affairs*, vol. 74 (May/June 1995), p. 11; and Paul Gallis, *NATO: Enlargement in Central Europe* (Congressional Research Service, November 10, 1994), p. CRS-9.

might even develop closer economic, political, and security ties with Russia (either voluntarily or as a result of increased Russian pressure).

To ensure their stability, according to this view, the principal need of the emerging democracies of East Central Europe is economic development. Becoming members of the European Union is more important for them than is joining NATO.¹¹ In fact, it is unclear how becoming members of NATO--a military alliance--enhances the chances for political and economic reform in those nations. Unlike post-World War II Germany, no severe military threat undermines their prospects for economic development and growth. In fact, joining NATO could impose additional military requirements (as described in Chapter III) that would increase the defense burdens of the new members, taking resources away from the economic development needed to ensure stability and security.

Critics of expansion also advance the argument that enlarging NATO will dilute the cohesiveness and military effectiveness of the alliance.¹² Without the unifying Soviet threat, agreeing on operations beyond NATO boundaries--such as the conflict in Bosnia--is difficult enough with the current membership of the alliance, let alone an expanded one.¹³

In addition, in a time of post-Cold War reductions in armed forces and defense budgets, expanding NATO's territory means that a gap would open between NATO's increasing commitments and its declining resources to fulfill them. Current member nations would incur additional costs to help defend new members that have obsolescent militaries.¹⁴ The Visegrad states have few resources to improve their armed forces, thus making them consumers of security. Finally, defending some new members--particularly Poland, which has a large territory and flat terrain--may present a challenge for the alliance.

EXPAND NATO, BUT SLOWLY

A third point of view espouses expansion but cautions that there is no reason for NATO to rush into the process. Proponents of this approach believe that the alliance

11. Brown, "The Flawed Logic of NATO Expansion," pp. 46-47.

12. Fred Ikle, "How to Ruin NATO," *New York Times*, January 11, 1995, p. A-21.

13. Schwarz, *NATO at the Crossroads*, p. 4.

14. Jim Hoagland, "NATO: The Case for Holding Back," *Washington Post*, June 22, 1995, p. A-20.

could benefit from expanding slowly while mitigating any negative reaction from Russia. The Clinton Administration and the alliance support this view.¹⁵

According to this view, expansion would fulfill a moral obligation to protect the nascent democracies of East Central Europe and export stability to that region by providing a security umbrella under which to consolidate political and economic reform in those nations. Moreover, to be admitted into the alliance, the East Central European nations would have an incentive to undertake democratic and economic reforms, consolidate civilian control over the military, improve human rights, and resolve disputes with their neighbors. In short, instead of pulling NATO into an unstable region, expanding the alliance would help stabilize the area.¹⁶

As a further benefit, expanding NATO to include the Visegrad states would extend the alliance's "shadow of stability" into nearby countries, such as Ukraine, Romania, and the Baltics and would give them an incentive to reform their political and economic systems. Therefore, supporters of expansion believe that, far from being threatened by NATO expansion, Russia should instead benefit from the added stability in a traditionally volatile region near its borders.¹⁷

According to this view, during the Cold War, the admission of West Germany into NATO promoted stability and reform in that country and anchored it firmly in the Western camp. Proponents argue that membership in NATO helped to stabilize democracy and placed a brake on any tendency toward authoritarian rule in Spain, Portugal, Greece, and Turkey.¹⁸ They also contend that the alliance muted conflicts between Greece and Turkey.¹⁹ They believe that admission into NATO could provide the same stability for the East Central European nations. To improve their chances to get into NATO, Hungary and Slovakia have already negotiated agreements that confirm their existing borders and ensure the rights of the Hungarian

15. Strobe Talbott, "Why NATO Should Grow," *New York Review of Books*, August 10, 1995, pp. 29-30; statement by Richard Holbrooke, Assistant Secretary of State for European and Canadian Affairs, before the Subcommittee on AirLand Forces, Senate Armed Services Committee, April 5, 1995, p. 17; and North Atlantic Treaty Organization, *Study on NATO Enlargement* (Brussels: NATO, September 1995).

16. Talbott, "Why NATO Should Grow," pp. 27-29.

17. *Ibid.*, p. 30.

18. Ronald Asmus, Richard Kugler, and F. Stephen Larrabee, "Building a New NATO," *Foreign Affairs*, vol. 72 (September/October 1993), p. 30.

19. Talbott, "Why NATO Should Grow," p. 28.

minority in Slovakia; efforts at reaching a similar agreement between Hungary and Romania are in progress.²⁰

This view holds that stabilizing East Central Europe would fill the power vacuum existing in a traditional area of competition between two great powers--Russia and Germany. If that power vacuum is not filled, both of those nations will try to fill it, perhaps leading to another major conflict in Europe.²¹ Expansion would help contain the potential threat farther east that a resurgent and aggressive Russia would pose. It would also contribute to stability on Germany's eastern borders, eliminating the need for Germany to unilaterally ensure its own security by making its foreign and defense policies more nationalistic. (Although somewhat divided on the issue, German policymakers are generally proponents of expansion.)

Some analysts seem to support expansion at a measured pace exactly because they accept the argument that NATO, as currently organized, has little role to play. NATO must expand or become irrelevant by defending borders that are no longer threatened. According to one Administration official, if NATO, the principal mechanism for American involvement in European security affairs, is to remain useful, it must expand.²²

These observers believe that consolidating the gains of the Cold War, however, should be done slowly to mitigate the damage to the West's relations with Russia. They argue that, although Russia should not have a veto over expansion, enlargement should be slow in the hope that Russian opposition will be muted. To lessen Russia's concerns and recognize it as a great power, they have proposed creating a special relationship between Russia and NATO.²³ Such a relationship could include a nonaggression pact.

EXPAND NATO MORE QUICKLY

Some observers argue that a limited window exists to expand NATO. In their view, Russia is now weak militarily, economically, and politically. But that situation may

20. Ibid., p. 28.

21. Asmus, Kugler, and Larrabee, "Building a New NATO," pp. 29-31; and briefing by Richard Kugler of RAND to the Congressional Budget Office, December 15, 1994.

22. Talbott, "Why NATO Should Grow," p. 27.

23. Statement of William Perry, Secretary of Defense, before the House National Security Committee, January 27, 1995, p. 5.

not always exist. If NATO waits until an aggressive Russia returns, it will probably be too late to expand.²⁴ In any future East-West crisis, a strong and strident Russia might intimidate either NATO or East Central European nations, thus inhibiting the desire to expand. From a Western perspective, the outlook for Russia's political and economic reform and pro-Western foreign policy is dim; expansion then needs to proceed quickly to consolidate the gains of the Cold War before it is too late. According to this view, Russia does not feel threatened militarily by an expanded NATO, but fears a loss of influence in its traditional sphere in the states of the former Warsaw Pact.

Also, instead of diminishing the influence of the extreme nationalist forces in Russia, forgoing or delaying expansion to appease those groups will only embolden them.²⁵ Furthermore, expanding the alliance should not be delayed until after the European Union has admitted the East Central European nations. Because the United States is not a member of the EU, waiting for that organization to act would be abdicating America's traditional role of leadership in Europe.

EXPAND NATO WIDELY AND INCLUDE RUSSIA

Some analysts argue for a policy of admitting many nations, even Russia. Advocates of this policy, like those who wish to dissolve NATO, believe that in a post-Cold War world, the current regime for European security is outdated. Russia, because of its importance as a European power, should be included in any post-Cold War security regime. They argue that a stated desire to include Russia in the alliance if it met certain criteria (for example, creating a democratic society and free market economy) would encourage political and economic reforms and bolster the standing of Russian factions advocating such reforms.²⁶

According to some proponents of that view, the policy would transform NATO from a military alliance, which emphasizes collective defense and has a narrow membership, to a Europeanwide collective security organization that emphasizes political dialogue, crisis management, and peacekeeping. This solution is modeled on the settlement of the Congress of Vienna after the Napoleonic Wars,

24. Henry Kissinger, "Expand NATO Now," *Washington Post*, December 19, 1994, p. A-18.

25. Zbigniew Brzezinski, "A Plan for Europe," *Foreign Affairs*, vol. 74 (January/February 1995), p. 40; and George Weigel, "Creeping Talbottism," *Commentary*, vol. 97 (March 1994), p. 40.

26. James Baker III, "A NATO Carrot to Solidify Reform," *Washington Times*, December 6, 1993, p. A-18.

which brought the defeated France back into the European security system and led to a century with no major Europeanwide war. In contrast, the Treaty of Versailles after World War I, which excluded Russia and Germany from the security system, helped generate the conditions that led to World War II.

The Clinton Administration may be moving closer to that view. According to a press report, President Clinton sent Russian President Boris Yeltsin a letter indicating that the United States has no objection in principle to Russia's entering the alliance. The report, however, quotes an unnamed Administration official as saying that it was important to show that the expansion process is open, inclusive, and not aimed at excluding Russia even though no one expects Russia to be admitted in the near future.²⁷

Despite the spectrum of views on the future of NATO, recent Congressional debate has centered on the alternatives that expand the alliance without including Russia. In analyzing military options to expand the alliance and estimating their costs, the Congressional Budget Office (CBO) assumed that the alliance would expand slowly and not include Russia.

ANALYZING MILITARY OPTIONS FOR EXPANSION

Article V of the North Atlantic Treaty pledges that an attack on one alliance member is an attack on all of them. If one member is attacked, its allies will take action, possibly including the use of armed force. Giving such a guarantee will necessitate that NATO plan for the defense of new members.

Officials associated with NATO and the U.S. Joint Chiefs of Staff (JCS) stated that no military planning has been done on how potential new members could be defended. They maintain that such planning is inappropriate before a decision is made on which nations to admit and when. Yet, according to NATO's study on enlargement, that factor will eventually be considered when deciding which country or countries to admit.²⁸ At the same time, officials of NATO and the Department of Defense claim that NATO has no immediate plans to make an estimate of the total cost of defending these new members. However, an estimate of the potential costs is critical to informed debate on whether the alliance should expand. Those costs could be substantial and for that reason deserve analysis.

27. Michael Dobbs and R. Jeffrey Smith, "U.S. Offers Assurances on NATO," *Washington Post*, May 7, 1995, p. 1.

28. North Atlantic Treaty Organization, *Study on NATO Enlargement*, p. 15.

Thus far, the public debate on expansion has focused on the pros and cons of expansion without the advantage of much available data on the costs of doing so. CBO attempted to fill this gap by examining five illustrative options that present varying approaches to providing for the defense of the new members, each building on the previous one in scope and cost. The analysis explores the military value of each option, determines what equipment and infrastructure would be needed to carry it out, develops a rough estimate of its cost during peacetime, and estimates how costs would be shared among the United States, current NATO allies, and new alliance members. For its analysis, CBO started with six premises:

- o The four Visegrad states would be the first nations invited to join NATO;
- o Plans for a defense of those nations would assume an uncertain threat;
- o Military options would take advantage of the resources NATO already has in Europe (mainly those based in Germany);
- o Costs of expansion are calculated for the 1996-2010 period;
- o Estimates of total costs for expansion are made from the costs of component parts; and
- o New member states would be expected to assume a substantial portion of the costs of expansion, with existing NATO allies providing significant assistance.

The Visegrad States Will Be Admitted First

Although NATO has not publicly stated which countries will be admitted first, most of the public debate to date has centered around admitting Poland, the Czech Republic, Slovakia, and Hungary because of their proximity to alliance territory and their political and economic reform programs. Those nations are the focus of the paper's analysis of military options and cost estimates of those options. Appendix A discusses the implications of expanding the alliance further into Slovenia, Romania, Ukraine, and the Baltic countries of Estonia, Latvia, and Lithuania.

Assume an Uncertain Threat

Assessing the future threat to East Central Europe is a difficult exercise plagued with uncertainty. The most likely problems are conflicts similar to the one in Bosnia, in

which two or more East Central European countries are engaged in disputes over borders or the treatment of ethnic minorities. The most severe threat (but, according to experts, an unlikely one) would be the invasion of one of those nations by an aggressive and militarily powerful Russia. CBO is not predicting a return of such a Russia or its invasion of East Central Europe. Military planners, however, routinely plan against worst-case threats. Thus, CBO believes it valuable to analyze how an expanded NATO might respond to that potential threat.

CBO assumes that the threat to East Central Europe from forces in western Russia is likely to remain constrained by the overall limits on weapons contained in the CFE treaty. That treaty limits the number of armored vehicles, artillery, tactical aircraft, and attack helicopters that Russia can have west of the Ural Mountains.

Although Russia could abrogate the CFE treaty by building up its forces west of the Urals or moving some of its forces from those countering China in the Far East, either step would entail substantial risk and cost substantial amounts of money that the financially strapped Russian government probably does not have; they would also give NATO ample warning of a resurgent threat. Building up forces would entail procuring new equipment and generating new units and training them. Moving forces from the Far East would involve building new bases west of the Urals. The Russians already had to disband units returning from Eastern Europe because of insufficient bases to house them in western Russia. Furthermore, an invasion of a Visegrad state would generate substantial costs--for example, replacing expended fuel and spare parts and repairing damaged equipment.

The Defense Intelligence Agency estimates that by 2005 Russia will have reduced its forces west of the Urals from about 31 divisions and 44 regiments of tactical aircraft to 22 divisions and about 37 regiments of tactical aircraft. Unless the economically strapped country invests many more resources in defense during the next decade, even the 22-division force will probably vastly overstate the threat Russian forces pose to the nations of Eastern and Central Europe. The breakup of the Soviet Union threw the still large Russian armed forces into chaos. Because the Soviet armed forces were positioned west toward NATO during the Cold War, the best fighting units were absorbed into Ukrainian and Belarussian militaries when the Soviet Union collapsed or were dissolved as they returned from Eastern Europe. For example, only about half of the Soviet Union's combat aircraft were retained by Russia. Similarly, the best military facilities are now in Ukraine and Belarus or were abandoned in Eastern Europe.

In addition, the readiness and morale of Russian forces have declined dramatically, as their performance in Chechnya shows. According to a NATO expert on Russian military developments, forces equivalent to only about seven of the 22

divisions west of the Urals are currently combat ready. Equipment is decaying because it is not being maintained or because obsolete items are not being replaced by procurement. Also, housing for troops is in short supply, and training has been reduced because of shortages of personnel, fuel, and resources.

In fact, Russia's defense budget has declined substantially. Most analysts agree that it would take a period of years to rebuild a Russian force capable of successfully attacking a Visegrad state, giving the West ample warning time. Although it would take NATO some time to move its forces from Western Europe into defensive positions in the Visegrad states, it would take the Russians longer to ready their forces for an attack and launch it against those states.

Even a resurgent Russia with a nationalist government would face formidable military and political obstacles in attacking any one of the Visegrad states. With the breakup of the Soviet Union, Russia no longer even borders the Visegrad states (with the exception of the small, isolated Russian enclave of Kaliningrad that borders Poland and Lithuania; see Summary Figure 1). The bulk of any Russian force invading Poland would have to travel through the Ukraine, Lithuania, or Belarus, thus necessitating long supply lines back to Russia. Ukraine, which has tensions with Russia and has sizable armed forces, might militarily oppose any such transit. Although its capability to slow a Russian advance would be limited, the Lithuanian population might also resist. And if Russian forces could advance into Poland only through Belarus, the potential invasion route would be more certain and would allow NATO to be more efficient in deploying its intelligence assets and weapons.

A Russian attack on the insulated Czech Republic would be even more difficult because it would have to proceed through Lithuania, Belarus, or Ukraine and then either through Poland or mountainous Slovakia. Russian troops would also have to traverse Ukraine to attack Slovakia or Hungary.

Even if a credible invasion force could be mustered, domestic support in Russia for an invasion of a Visegrad state is questionable. Currently, Russia's leaders and population are preoccupied with the state of the Russian economy. Furthermore, if the Russian government garnered little public support for subduing the breakaway region of Chechnya in the Russian Republic itself, then it might receive even less support for invading a state outside of the former Soviet Union.

In a post-Cold War world, lesser threats to the Visegrad nations are very unpredictable. Because of its proximity to the unstable Balkan region, Hungary may face the most potential sources of instability. The most likely threat to Hungary is probably a conflict with Romania over the Hungarian minority living in that country. That threat may be receding somewhat because the two nations are trying to

negotiate a settlement. Similarly, a Serbian-Hungarian conflict could arise over the Hungarian minority living in Serbia. Although Serbia is currently preoccupied with the situation in Bosnia, a future Serbian-Hungarian conflict is not out of the question. During the war in the former Yugoslavia, Serbia bombed a Hungarian border town.

Military Options Would Take Advantage of the Resources NATO Has in Europe

The military options that CBO formulated that would help defend the Visegrad states during a crisis would draw principally on forces that NATO already has in Europe (mainly those based in Germany). That premise was adopted for a number of reasons: significant uncertainty exists about any specific threat to those states, declining defense budgets in alliance nations indicate an unwillingness to increase force structure, and existing NATO assets based in Germany are still formidable.

Even though military forces in Europe have been reduced, the formidable alliance forces remaining include 11 ground divisions currently stationed in Germany (seven German divisions, one British division, one French division, one and one-third American division equivalents--four brigades--and one-third of Belgian and Dutch divisions--one brigade each) and 13½ tactical air wings (10 German wings, one British wing based in Germany, and two and a half American wings based in Germany, Italy and the United Kingdom). Equipment for one and two-thirds more U.S. divisions--five more brigades--is prepositioned in Western Europe. In time of crisis, troops would be flown from the continental United States to operate the equipment. Because CBO assumed that one German ground division and two air wings would be retained in Germany for defensive purposes, allied forces available for use in a crisis would total 11⅔ divisions and 11½ air wings.

Other allied forces coming from their homelands--for example, French or British forces--could be substituted for some of the German forces without significantly altering the costs during peacetime of CBO's military options. Those forces, however, would not reach the Visegrad nations as quickly as German forces because Germany is closer to any potential front.

Because the threat and potential war scenarios are uncertain, CBO did not attempt to conduct a force-on-force analysis of warfare involving an expanded NATO. But comparisons of a defender's situation in Poland or the other Visegrad states with other familiar situations--those faced by NATO in Germany today or by the allied coalition during Operation Desert Shield--lead CBO to believe that the resources NATO now has in place would be sufficient to make an Article V commitment to the Visegrad states credible. A worst-case scenario--an attack by an aggressive and militarily potent Russia--might include the 22 Russian ground

divisions (24 $\frac{2}{3}$ divisions if the forces of Belarus were added) west of the Ural Mountains, brought back up to the levels of readiness achieved during the Cold War. Because of the Russian financial constraints cited earlier, CBO did not assume that Russia would abrogate the CFE treaty by augmenting its forces west of the Urals.

When the quality of weapons is taken into account, Russian ground forces would be equivalent to about 14.9 armored division equivalents (ADEs). If the ground forces of Belarus were added, the threat would increase to about 16.7 ADEs. (An ADE score for any division compares the quantity and quality of its weapons with those of a U.S. armored division, which has a score of one.) In contrast, the allied ground force of 11 $\frac{2}{3}$ divisions has an ADE score of about 8.3. Thus, even excluding the upgraded Visegrad ground forces of the future (those forces would be hard to assign an ADE score because their militaries are in transition), the ratio of Russian to NATO ground forces might be 1.8 to 1. If the forces of Belarus were added, the ratio would still be only 2 to 1.

After post-Cold War force reductions, NATO has deemed that a similar force would be adequate to mount a defense of Germany. Hence, it stands to reason that a 1.8 to 1 ratio of ground forces, improved by adding the enhanced Visegrad forces to NATO's score, should provide at least the same level of defense to new NATO states as to Germany.

Operation Desert Shield is another military example that offers insight into the adequacy of existing NATO forces for the defense of the Visegrad states. During that operation, coalition forces prepared to defend Saudi Arabia against a possible attack by Iraq before offensive operations were undertaken in Operation Desert Storm. The ratio of Iraqi ground forces to coalition ground forces during this defensive phase of the Persian Gulf War--1.6 to 1--was roughly similar to the aforementioned Russian/NATO force ratio modified to include enhanced Visegrad forces.

In certain key respects, a war pitting NATO against Russia in the most demanding East Central European scenario--Russian mechanized forces attacking Poland--shares similarities with Operation Desert Shield. In both instances, the opponent operates with heavily mechanized forces, Soviet-designed equipment, and centralized Soviet-style fighting doctrine. As in Desert Shield, the defending force would be highly trained and outfitted with the most modern Western equipment. Because of the superiority of Western tactical aircraft, CBO assumed that NATO air forces would achieve air superiority after a few days and begin to attack Russian ground forces.

Although open flat terrain is usually a disadvantage to the defender, such terrain in both Poland and Saudi Arabia is ideal for using air power to kill enemy armored formations, operating allied mechanized forces, and conducting a defense that emphasizes mobility and trades space for time. As in Desert Shield, the open terrain would also allow the efficient use of NATO's superior logistics systems and make attack routes visible to NATO's reconnaissance systems, accentuating its advantage in modern command, control, communications, and intelligence systems. In both cases, however, some strategic objectives lie fairly close to the front--the oilfields in northeastern Saudi Arabia and Poland's capital, Warsaw. Differences in the Polish and Desert Shield scenarios include the greater readiness of Russian forces compared with those of Iraq (provided Russian forces are brought up to Cold War levels, as assumed in the worst-case scenario), more potent Russian air power, and a major Polish river (the Vistula) that NATO forces would be able to use as a defensive barrier.

Of course, the uncertainties on both sides of the balance of forces make it impossible to determine exactly which NATO forces could effectively defend Poland against a resurgent Russia. But the case of Operation Desert Shield indicates that under circumstances that were similar in many key respects, the United States military believed it would be able to conduct an adequate defense with a similar ratio of forces. Therefore, the Desert Shield example provides further evidence that the 11 $\frac{2}{3}$ divisions and 11 $\frac{1}{2}$ air wings available to NATO to defend the region could provide an adequate defense.

In addition, a force that can provide a sufficient defense against the worst-case threat will probably be more than adequate to deal with lesser contingencies in the region--for example, any NATO intervention in a Romanian conflict with Hungary. Those lesser contingencies would probably feature much less potent attacking forces than those of Russia. In addition, in some cases--for example, a NATO defense of the Czech Republic or Slovakia--rough terrain and a smaller territory to defend might allow an adequate defense with fewer forces.

Assumptions Were Made in Measuring the Costs of Expansion

CBO calculated the costs of expansion over the years from 1996 through 2010. Even before they were admitted to the alliance, the Visegrad nations would probably continue to improve their militaries and defense infrastructure and learn to operate more closely with NATO forces. Also, they would most likely continue to receive military assistance during the transition period so that they could get ready to be part of the alliance. Therefore, all of the costs to prepare those nations for entry into

NATO are included in the costs of expansion. CBO's estimate of the costs of expanding NATO involved two steps:

- o Making a rough estimate of the total costs of expansion by estimating the costs of its component parts; and
- o Allocating costs among existing members, new members, and projects funded by the alliance. Because such allocations occur as a result of negotiation among member nations in a complex political and institutional context and because such negotiations have not yet been completed, CBO had to make some assumptions about how costs would be distributed.

Estimates of Total Cost for Expansion Are Made from the Costs of Component Parts. CBO made rough estimates of the costs of expansion by first examining what specific steps would be needed to carry it out militarily--for example, improving military forces and infrastructure. CBO then estimated the cost of each of those component parts. In the vast majority of cases, the cost estimates for the component parts--such as the cost to improve air defenses or to build NATO facilities at air bases in the Visegrad states--were based on data obtained from the U.S. military services.

When assuming that existing allies and Visegrad nations upgraded their forces (for example, to increase their ability to project power), CBO estimated costs by using the U.S. military's assessment of what it would cost to make similar improvements for its forces. Adjustments were then made to reflect the smaller size of military units in the foreign nations. When CBO assumed that the Visegrad nations purchased new weapons, the costs of doing so were based on the cost of buying U.S. weapons--albeit not the most advanced ones. (U.S. arms exporters, however, were only assumed to garner about 47 percent of those purchases.) In a few cases--for example, the costs to improve ports and the road and rail systems in the Visegrad states--CBO obtained data from international organizations such as the World Bank and the European Bank for Reconstruction and Development. Those data were then adjusted to reflect the assumption that defense spending would fund only a small portion of those expenses.

Because NATO has not made a decision on which nations to admit and what specific steps to take in carrying out expansion, the estimates are necessarily hypothetical and rough. Nonetheless, this step is the more precise of the two. Determining how those expenses are shared among nations involves making some assumptions.

How Expenses for Expansion Are Assumed to Be Shared. The United States would not bear the entire cost of NATO expansion. CBO assumed that expenses would be shared among other NATO countries as well as the recipients of the assistance. Individual NATO countries would cover some of the costs as bilateral military assistance. NATO's Security Investment Program (SIP) might fund other projects.

The SIP allows member nations to pool their funds to finance projects to improve the alliance's infrastructure. Projects eligible for funding by the SIP could include building or upgrading facilities at airfields, ports, air defense installations, command and control centers, sites for prepositioned stockpiles of military equipment, and training and exercise facilities. Formerly the NATO Infrastructure Fund, the SIP takes in contributions from alliance members (the United States currently pays for about 28 percent of the program) and finances projects that are "over and above those which could reasonably be expected to be covered from national resources."²⁹ Because of declining defense budgets within the alliance after the Cold War, NATO's 1993 rules that formulated the "over and above" criterion for eligibility represent a more selective approach to funding projects than before. Military infrastructure that a member nation would build and use for its own forces without added requirements for use by NATO is no longer eligible for SIP funding.

However, exceptions for critical infrastructure improvement projects do exist. Those exceptions allow projects to be eligible for funding when they respond to risks or geostrategic conditions in certain regions in the alliance. Furthermore, those exceptions could apply to countries that cannot afford to fund infrastructure projects. In addition, according to an official in the office of NATO's Comptroller for Infrastructure, because dissension still exists in the alliance about the "over and above" principle, it would probably be loosened or even renegotiated if expansion occurred.

The eligibility of a project for financing, however, does not guarantee that the project will be funded. The SIP budget has declined 47 percent from 1989 to a total of about \$900 million in 1994. Also, projects in new member states would have to compete with others elsewhere in the alliance for scarce funds. Therefore, how many of the projects in the Visegrad states would actually be financed through the SIP remains unclear.

Despite expectations by the alliance--and consequently a CBO assumption--that the Visegrad nations would finance a substantial portion of the costs of expansion, their ability to do so is in doubt. Their economies are in transition from

29. North Atlantic Council, *Renewal of the Infrastructure Programme: Note by the Secretary General* (Brussels: NATO, June 18, 1993), p. 1.

communism to capitalism and their defense budgets have fallen greatly from Cold War levels (see Appendix B). Even if economic growth allowed the Visegrad states to spend more on defense, NATO allies would probably need to contribute significantly to defray the costs of expansion by either increasing the SIP budget or providing bilateral military assistance to those nations. If no help is given to the Visegrad nations through either of these channels, over time they will probably make little progress in upgrading their military infrastructure and in making their forces compatible with those of NATO. If so, NATO's ability to fulfill its Article V commitment to defend those nations might be called into question.

Yet existing NATO members may be reluctant to provide such assistance. NATO's study on enlarging the alliance notes that expansion will cause the alliance's budget to increase. According to the study, however, the amount of the increase will depend on the extent of participation by new members. The study is unclear about how much more existing members will have to pay into the budget to help finance expansion.

The NATO study also argues that the financial effects on the SIP of expansion in the short term will be minimal and not interfere with existing infrastructure projects. During that time, according to the study, the capacity of the Visegrad states to absorb projects would be limited; also, the projects that would be undertaken would take years to carry out. CBO looked at expansion over the longer term (through 2010) and found the requirements for new infrastructure to be higher. Furthermore, according to a State Department official and a high-level NATO official involved in infrastructure issues, key allied nations are reluctant to increase their contributions to the SIP.

Some NATO nations have already established bilateral military assistance programs associated with the Partnership for Peace program. Information on the scope and specifics of that assistance is not publicly available; in fact, many allies will not provide information to the United States government. According to one State Department official who monitors such programs, however, the United States is providing most of the bilateral military assistance going to East Central Europe. According to one NATO official, it was difficult even getting allied nations to agree to slight increases in NATO funding needed for PFP.

If that pattern continues as NATO expands, the United States and Germany might have to finance most of the costs of enlarging the alliance, since they are expansion's most enthusiastic advocates. Many of the other allies--including France and the United Kingdom--have been lukewarm about expanding the alliance. Therefore, they might be reluctant to contribute significantly to the costs of doing so. According to Strob Talbott, the Deputy Secretary of State, the Clinton Adminis-

tration wants to expand NATO because a strong alliance is the conduit through which the United States exercises its leadership role in Europe.³⁰ Enlarging the alliance allows Germany to become insulated by surrounding its eastern borders with NATO states, thus removing it from the frontline position it had in Europe during the Cold War.

Therefore, CBO made the following assumptions about distributing the costs of expansion (see Table 1). For expenses that would normally be a national responsibility--such as upgrading and training local forces and improving national infrastructure--in most cases CBO assumed that the Visegrad nations would pay the bulk of the expenses but would need some assistance. For infrastructure projects, the Visegrad nations were assumed to pay 70 percent of the expenses, Germany and the United States 10 percent each, and the SIP 10 percent. Those somewhat arbitrary percentages were used because CBO assumed that the rest of the allies convinced the two most enthusiastic advocates of expansion--Germany and the United States--to pay for most of the expenses. CBO assumed, however, that each of the two nations contributed only 10 percent of the expenses because their defense budgets have dropped in recent years, reducing their willingness to contribute toward expansion. If a project has both infrastructure and noninfrastructure aspects, the SIP was also assumed to pay 10 percent (in other words, the same percentage of contributions used for infrastructure projects apply).

CBO assumed that the SIP financed 10 percent of the expenses because the official in the office of NATO's Comptroller for Infrastructure predicted a loosening of the "over and above" criterion if expansion occurred. Indeed, even under the current guidelines governing the SIP, the criterion can be loosened for countries that have difficulty paying for infrastructure. Currently, the United States pays about 28 percent of SIP expenses--excluding contributions by France and Spain, which will soon be adding funds to the program. With added contributions, France will be responsible for 12 percent and Spain will be responsible for a little over 3 percent. CBO assumed that the four new alliance members together would contribute 4 percent. That assumption was used because each nation usually negotiates its share based mainly on its GDP. With those assumptions, CBO calculates that the U.S. share of the SIP would decline to 22 percent. Thus, its total contribution toward Visegrad expenses would amount to 12 percent (U.S. direct financing of 10 percent of Visegrad expenses plus 2 percent more through SIP funding; the 2 percent represents U.S. financing of 22 percent of the 10 percent of Visegrad expenses that the SIP would cover).

30. Talbott, "Why NATO Should Grow," pp. 27-28.

For noninfrastructure projects, such as training and upgrading national forces, in most cases CBO assumed that the Visegrad nations would pay 80 percent of the costs and Germany and the United States would pay 10 percent each. Again, those percentages are somewhat arbitrary but are based on the desire of those two nations to expand the alliance while restraining their defense spending. Because such projects make no improvements in infrastructure, no financing by the SIP was assumed.

TABLE 1. DISTRIBUTION OF EXPENSES FOR EXPANDING NATO (In percent)

Expense Category	U.S. Share	Share of Allies	Share of Visegrad Nations	SIP Share	Total
Expenses Visegrad Nations Would Normally Be Expected to Pay					
Infrastructure projects ^a	10	10 ^b	70	10	100
Noninfrastructure projects ^c	10	10 ^b	80	0	100
Combination of infrastructure and non- infrastructure projects	10	10 ^b	70	10	100
Expenses Financed by the SIP ^d	22	74	4	n.a.	100
Expenses Financed by Existing Members	100	or 100	n.a.	n.a.	100

SOURCE: Congressional Budget Office.

NOTE: NATO = North Atlantic Treaty Organization; SIP = Security Investment Program; n.a. = not applicable.

- a. For certain basic expenses that the Visegrad states would incur—such as stockpiling, and storing ammunition—CBO assumed those nations would pay the entire cost.
- b. This cost accrues only to Germany.
- c. For NATO exercises, the alliance's military budget currently pays a portion of the expenses—for example, some of the costs to set up the exercise. CBO assumed the United States, Germany, and NATO each paid 10 percent, leaving 70 percent for the Visegrad states to finance.
- d. The costs for operating and maintaining infrastructure created with SIP funds is usually paid by the alliance's military budget. With an expanded alliance, CBO assumed the U.S. share of the military budget was 23 percent, the allied share was 73 percent, and the Visegrad share was 4 percent.

CBO assumed that all expenses eligible for SIP funding under the "over and above" guidelines would actually be funded through that program (for example, prepositioning stockpiles of military equipment). The SIP budget would be increased to fund such requirements as well as the 10 percent of Visegrad infrastructure costs cited above (the loosening of the "over and above" criterion). The United States or its existing allies are assumed to finance other expenses--such as improvements to their own forces required to defend the Visegrad states.

CHAPTER III

THE BASIC OPTION TO ENHANCE THE SECURITY OF THE VISEGRAD STATES

Because the Congressional debate has centered on expanding the North Atlantic Treaty Organization without including Russia--but with particular emphasis on including the Visegrad states--the Congressional Budget Office confined its options to that scenario.

Under Article V, a commitment by NATO to assist a Visegrad country if attacked could take a variety of forms. CBO has examined five illustrative military options for expansion, each building on the previous one in scope and cost.

What NATO would need to do to provide an adequate defense for the Visegrad nations is difficult to determine. In the current environment, NATO can probably spend as much or as little as it likes on expansion. If the alliance merely admitted new members and made no military preparations to defend them if attacked, the peacetime cost of making such a political commitment would be negligible. If military preparations were made, however, greater costs would be incurred. Moreover, if greater future threats arose, such as an aggressive and militarily potent Russia, the alliance might need to spend even more. The first option that CBO explores--and the least ambitious and costly of the five--might help a Visegrad state to defend itself against a border skirmish or limited attack by a regional power. The option strengthens Visegrad defense forces to be the backbone of the defense plan and provides for NATO reinforcement if needed. It assumes that the Visegrad states will pay most of the costs of those improvements.

CBO's other four options are more ambitious and costly and are directed toward the threat of a resurgent Russia. They represent various methods of providing a defense by increasing the military and political strength of the response with each successive option and a heavier cost burden on existing NATO allies than Option I. A second option moves NATO air power east when a Visegrad nation is under threat from attack. This option reflects the school of thought arguing that air power now dominates the modern battlefield and can be decisive against an attack by enemy ground forces. A third option reflects the more traditional view that substantial friendly ground forces are needed for an adequate defense against their enemy counterparts; it adds NATO ground power to the flow of forces east. A fourth option prepositions military equipment on the territories of the Visegrad states so that troops can be flown to operate it during a crisis. That option allows heavy NATO ground forces to arrive at the front faster during the most dangerous early stages of a crisis when local forces are in the most danger of being overrun. The fifth option, the most

ambitious and costly of the alternatives, permanently stations a limited number of NATO forces (equipment and personnel) in the Visegrad states. Those forces would provide an early defense and also act as an even stronger political symbol of NATO's commitment to defend those states than would prepositioned equipment.

CBO estimates that the range of costs for the five illustrative options over the 15-year period from 1996 to 2010 would be \$61 billion to \$125 billion. Of those total costs, the United States might be expected to pay between \$5 billion and \$19 billion. Such U.S. costs might be manageable but only if--as NATO and CBO assume--the Visegrad nations themselves bear a substantial portion of the costs of expansion. Even under the least ambitious option, if the Visegrad states prove unable or unwilling to increase their defense spending significantly (estimated at about a 60 percent increase), then either the cost to the United States and other NATO members would have to increase substantially or tasks needed for an adequate defense of these nations might be left undone. The defense budgets of the Visegrad nations are small, their economies are in transition from communism to capitalism, and their populations do not support increases in the proportion of government spending devoted to defense. If such basic tasks needed for an adequate defense were left uncompleted, an effective NATO security guarantee might be questionable.

OPTION I: STRENGTHEN VISEGRAD DEFENSE FORCES AND PROVIDE FOR NATO REINFORCEMENT

For this option, CBO assumed that local armed forces would form the backbone of a defense for the Visegrad states. The option focuses on upgrading those forces, making them more compatible with NATO forces, and improving their infrastructure. Those improvements would help the alliance to resupply a Visegrad state (or states) should it come under attack; reinforcements could be moved from Germany if needed to prevent defeat. Higher-cost options in the next chapter would move air and ground forces into a Visegrad state that was under threat of attack.

This option would increase training and exercises with other NATO forces; enhance command, control, communication, and intelligence systems and integrate them with those of NATO; improve air defenses and integrate them with those of NATO; upgrade certain weapons and procure some new ones in key categories (for example, tactical aircraft, antitank weapons, tanks, and precision-guided weapons); and improve the mobility of land forces and the capabilities of naval forces (Poland only). Improvements in infrastructure would include upgrading roads, rails, and ports; building training facilities; standardizing fueling and fuel distribution systems; and building facilities for fuel and ammunition storage.

This option--with an estimated total cost of \$61 billion over 15 years--is the least costly approach to expansion that CBO examined. Nonetheless, it is still expensive and represents about 50 percent of the total cost of CBO's five options. Costs to the United States under this option are estimated at about \$5 billion, the costs to NATO allies at about \$14 billion, and the cost to the new member states at about \$42 billion. Adopting this approach would require that the new allies increase their average yearly collective defense spending during the period by about 60 percent over 1995 levels.

With the armed forces and defense budgets of the Visegrad and almost all existing NATO nations in decline, this approach might be a way to give the Visegrad states some sense of security at a lower cost than more ambitious options (such as those described in the next chapter). Considering the current low levels of threat to the Visegrad region, this lower-cost option may be adequate. As noted before, even with such an approach, at least some of the existing NATO members would probably bear a significant portion of the costs to upgrade Visegrad armed forces and infrastructure.

With an improvement in their forces, the Visegrad states would be better able to defend themselves against a limited war with a lesser regional power or a border incursion. Nevertheless, those nations may need NATO's help. Thus, improvements in military infrastructure are included in case some NATO reinforcement and resupply are needed after the Visegrad nations are attacked. (See Table 2 for a list of improvements to the forces and infrastructure of the Visegrad states included in Option I. The nature and extent of each of the improvements are discussed below.)

Although allowing those nations to become members of NATO might provoke the Russians, improving their forces and infrastructure might do so less than the higher-cost options discussed in the next chapter. The higher-cost options improve the forces of existing NATO members and the infrastructure of Visegrad nations so that NATO can deploy its forces there during a crisis or station small contingents of forces or their equipment there permanently. Such options would ensure a more rapid and effective defense of the Visegrad states but would probably provoke the Russians more.

Most Critical Improvements

Many analysts have identified three improvements to be the most critical in making the forces of Visegrad nations more effective in combat and in giving them a rudimentary ability to operate with NATO forces. Still, by themselves, these three

TABLE 2. SUMMARY OF THE COSTS FOR THE 1996-2010 PERIOD TO CARRY OUT
OPTION I: ENHANCE VISEGRAD DEFENSE FORCES AND FACILITATE
NATO SUPPLEMENTAL REINFORCEMENT (In billions of 1997 dollars)

Activity	Cost to the United States	Cost to NATO Allies	Cost to Members	Total Cost
Training and Exercises	0.7	1.7	2.2	4.6
Command, Control, Communications, and Intelligence	0.6	1.4	5.2	7.1
Air Defense Improvements	0.6	0.6	8.3	9.5
Upgrading and Buying Weapons for the Visegrad States ^a	0.8	0.1	18.4	19.2
Buying Tankers So That European Air Forces Can Project Power	0	5	0	5
Augmenting Forces to Project Power (Poland Only)	0.7	1.0	4.1	5.8
Naval Improvements (Poland Only)	0.1	0	1.1	1.1
Infrastructure Improvements	0.4	0.6	2.1	3.0
Exercise Facilities	1.0	3.5	0.2	4.7
Stockpile Fuel and Ammunition for Visegrad Armed Forces	<u>0</u>	<u>0</u>	<u>0.6</u>	<u>0.6</u>
Total	4.8	13.8	42.0	60.6

SOURCE: Congressional Budget Office based on numerous sources including the Department of Defense.

a. Table 3 presents more detail on the costs of upgrading existing weapons and buying new ones for the Visegrad states.

improvements would only marginally strengthen the weak forces of the Visegrad nations and would create an effective defense against only the weakest potential threats in the region.

Training and Exercises. The Warsaw Pact alliance, of which all four Visegrad states were members, had a much more centralized command structure than does NATO. For that reason, the commissioned and senior noncommissioned officers of the new member nations would require training in NATO military doctrine and tactical and operational procedures. Training in English is also vital for integration into the alliance. English is the chief day-to-day operating language of the alliance, and many soldiers in the Visegrad militaries need to learn to speak it. In addition, the Visegrad nations might also need help in developing a professional non-commissioned officer corps--regarded as the backbone of Western militaries.

The International Military Education and Training (IMET) program was created to allow foreign military personnel to be exposed to the U.S. military and get a professional military education, as well as gaining technical, nation-building, and English language skills. To increase the number of soldiers receiving such training, CBO assumed that the IMET program would be expanded for each of the four new member countries. The program would train 10 percent of their officers and volunteer enlisted troops during the 15-year period from 1996 to 2010. This cadre of military personnel in each country could then train the rest of that nation's military.

Expanding the IMET program would cost the United States an estimated \$190 million. CBO assumed that Germany would make a comparable investment to train another 10 percent of the Visegrad officers and volunteers. Although NATO has recently begun a limited training program, the alliance has not traditionally emphasized this function. CBO assumed that NATO would not train a significant proportion of the Visegrad armed forces.

Finally, occasional large-scale NATO exercises (once every three years) would be held on the territory of the new member states so that NATO forces could become familiar with the terrain to be defended if reinforcement was needed; Visegrad armed forces would also get much needed practice in operating with NATO troops.

NATO countries are usually individually responsible for financing the cost of fuel and other operations and support to participate in NATO exercises. The Visegrad nations, however, are unlikely to be able to pay the entire cost of sending their forces to such exercises, so CBO assumed that Germany and the United States would each pay 10 percent of their costs. (Under the Partnership for Peace program, the United States subsidizes the expenses of partner countries for military exercises.)

In addition, NATO's military budget usually funds some of the costs of setting up the exercise. CBO assumed that NATO would continue to do so and that those costs would be 10 percent of the total.

According to CBO estimates, NATO exercises in the Visegrad states would cost about \$4.2 billion during the 1996-2010 period. The cost for U.S. forces to participate in such exercises and for the United States to offset 10 percent of Visegrad expenses of doing so is estimated at more than \$500 million.

CBO estimated that the total cost of increasing training and exercises would be \$4.6 billion for the 1996-2010 period. The cost to the United States is estimated at more than \$700 million during that period.

Command, Control, Communication, and Intelligence (C³I). Along with becoming familiar with NATO military doctrine and procedures, adopting communication systems that are compatible with NATO's equipment would be a high priority when Visegrad nations began to integrate their armed forces into NATO. Communication systems used by the Visegrad nations are obsolescent and cannot operate very well with NATO systems. Compatible radios would probably be needed for Visegrad ground forces and aircraft.

In addition, enhancing civilian communications in those new member nations would improve military communications. Military systems could plug into civilian systems. For example, the unified NATO communication system could be connected to each Visegrad state through rented postal circuits and the SATCOM satellite system. As the Visegrad economies expand, upgrading civilian communication--which would require improving telephone, telegraph, and microwave systems--might be done for commercial reasons. Such private investment would reduce the need for financing from the defense budgets of Visegrad nations and existing NATO members.

In the Visegrad region, hardened NATO command centers--including transportable facilities--would need to be created. In addition, centers for analyzing, processing, and disseminating intelligence information would be needed. Equipment for processing command and control and intelligence information is obsolescent in the Visegrad nations and not compatible with NATO systems.

CBO estimates that enhancing C³I systems would cost \$7.1 billion, of which the United States would contribute about \$600 million. In theory, the Visegrad states are responsible for buying NATO-compatible radios for their ground and air forces. CBO assumed, however, that Germany and the United States would help to finance that purchase. Specifically, CBO assumed that Germany and the United States

would each contribute 10 percent of the total cost. CBO made the conservative assumption that upgrades to civilian communication infrastructure would be done for commercial reasons and would not count toward the costs of expansion. Building NATO command centers and intelligence facilities was assumed to be funded by the Security Investment Program. Operating and maintaining those facilities were assumed to be financed by NATO's military budget.

Air Defense. Because Visegrad nations are no longer under the umbrella of the integrated air defense system provided by the Soviet Union, combating threats from the air is a high priority. The Visegrad states have already agreed to cooperate in air defense and exchange data from radar; NATO nations may have to help fund those activities. The Clinton Administration plans to provide a total of \$25 million for a Regional Airspace Initiative to help the four Visegrad nations to improve their air defense systems, including providing new computers for each of the Visegrad national air defense command centers.

Civilian improvements can enhance military capabilities. For commercial reasons, all of the Visegrad states will probably modernize their civilian air traffic control systems. For example, at a cost of \$90 million, the Czech Republic is increasing the number of radar systems and upgrading its air traffic control centers to make them electronically compatible with those of adjacent European nations. As the Czech economy began to expand and tourism grew, the need for more modern air traffic control facilities became more acute. The same will probably happen in the other Visegrad states.

Civilian air traffic control will also have to be better integrated with military air defense systems. During the era of the Warsaw Pact, the Visegrad militaries controlled the air space with little or no coordination with civilian air traffic control centers.

To integrate their military air defense systems with that of the alliance, each new member would have to buy NATO-compatible Identification Friend or Foe (IFF) systems and create a modern air operation center (AOC) and control and reporting centers and elements (CRC/CRE). The AOC is a command center that provides centralized control of air operations, develops the air campaign, and designates aircraft for specific missions with an air tasking order. The CRC and subordinate CRE are mobile units consisting of radar systems and computerized facilities from which military personnel direct air defense, offensive air operations, and airspace control. For the air defense mission, they provide early warning, air battle management, and fighter control. A CRC has twice the equipment (radars, consoles, and radios) and personnel as a CRE and has greater responsibility for coordination with external organizations.

The NATO-compatible IFF system consists of an electronic box on an aircraft or ground radar called an interrogator that queries an unknown aircraft with an electronic beam. If the aircraft is friendly, its activated transponder will send the proper electronic signal back to the interrogating aircraft or ground radar. The Visegrad nations are beginning to purchase NATO-compatible interrogators and transponders. For example, Hungary has spent \$12 million to \$13 million to purchase such devices. In addition to buying electronic identification devices, Visegrad air forces will have to become familiar with NATO air defense doctrine and procedures--for instance, that all aircraft flying outside a certain air corridor might be considered hostile.

In the Visegrad nations, surveillance and command systems for air defense would be connected to NATO's Airborne Warning and Control System aircraft and to Soviet-built low- to medium-altitude surface-to-air missiles (SAMs). CBO assumed, however, that the Visegrad nations would need to buy and integrate new medium- to high-altitude SAMs, such as Patriot missiles.

CBO estimates that the cost of those improvements in air defense would be \$9.5 billion, of which the United States would pay about \$600 million. CBO made the assumption that the cost from defense budgets to upgrade civilian air traffic control systems and integrate them with military systems would be minimal. Such upgrades would probably be done for commercial reasons. CBO assumed that the Security Investment Program would finance all facilities used in air-defense operations. Although the Visegrad states are responsible for buying new IFF systems and new medium- to high-altitude SAMs, it was assumed that Germany and the United States would each provide grants to finance military exports worth 10 percent of the purchase price.

Other Improvements

Although not as critical as the first three, other improvements have been identified to enhance the effectiveness of Visegrad forces and facilitate reinforcement and resupply by NATO if needed.

Upgrading Older Weapons and Buying New Ones. Although most of the military equipment owned by the Visegrad states is obsolescent and requires replacement, those states lack the funds to buy a complete set of new equipment for their forces. Therefore, CBO assumed that they would upgrade or replace systems in only a few high-priority categories.

CBO assumed that the Visegrad states would upgrade some of their Soviet-designed weapons. For example, MiG-21 fighter aircraft would get new Western electronic systems and T-72 tanks would get a Western fire-control system and other new electronics.

Eventually, some weapons (such as other Soviet-designed fighter aircraft and T-55 tanks) would be replaced by Western systems (for instance, Western fighter aircraft) or new locally built hardware (for example, PT-91 Twardy tanks produced by Poland). That replacement, however, may not always be done on a one-for-one basis because the Visegrad nations cannot afford it and their militaries are downsizing. In fact, the defense budgets of the Visegrad nations have declined dramatically, and their militaries now pay market rates for wages, land, fuel, and so forth (thereby increasing the expenses for personnel and operating and maintaining the forces). As a result, the money to develop and procure new weapons has plummeted. Poland, which has by far the largest defense budget of the Visegrad states, reduced the percentage of funds allocated to research, development, and procurement from 32 percent in 1988 to 10 percent in 1994. (The other Visegrad nations currently spend from 6 percent to 15 percent of their military budgets on research, development, and procurement.) In a \$2.4 billion defense budget, Poland's investments amount to only \$240 million per year. When one new F-16 costs at least \$20 million to procure, the problem of limited funds is starkly illustrated.

If the Visegrad countries can sustain substantial economic growth for the rest of the decade, their defense budgets will probably eventually increase. They will be likely to buy technology or weapons from the West in the following areas that they have assigned a high priority: fighter/ground attack aircraft, medium- to high-altitude surface-to-air missiles, weapons to destroy tanks, electronic warfare equipment, and precision-guided munitions.

For fighter/attack aircraft, CBO assumed that only new IFF systems would be required for the MiG-29 aircraft, the only relatively modern fighter in the Visegrad inventories. It was assumed that new electronic systems would be procured for the older MiG-21, including systems that would allow those aircraft to shoot modern air-to-air weapons and precision-guided munitions. CBO also assumed that Western aircraft would eventually replace other obsolescent Soviet-built aircraft. All upgraded Soviet-designed aircraft and new aircraft were assumed to require basic precision-guided missiles or air-to-air missiles or both. All such aircraft were also assumed to require Western electronic warfare equipment for self-defense--a radar warning receiver to detect enemy radar systems and a jamming pod to disrupt them. Most of these Western-built systems are superior to the Soviet-designed systems that the Visegrad states have in their inventories.

If Russia is regarded as the major future threat, the Visegrad nations would need to destroy tanks inexpensively. Russia has heavily armored forces. Tanks themselves are potent tank killers, but they are expensive. Because the Visegrad nations are financially constrained, CBO assumed that they would upgrade their T-72 tanks with Western fire-control and electronic systems and buy antitank missiles that can be fired from vehicles other than tanks. Eventually, the Visegrad countries would replace the older T-55 tank with either a Western or locally produced tank—for example, the Polish PT-91 Twardy tank. (In Table 3, CBO projects the quantities of upgraded and new weapons the Visegrad nations would procure during the 1996-2010 period.)

CBO estimated the total cost of new or upgraded weapons for the Visegrad states at \$19.2 billion. In 1993, the year having the latest complete data available, the United States led the world arms export market with a 47 percent share. CBO assumed that it would garner the same share of arms sales to the Visegrad states. (That assumption may be conservative: the United States may have leverage when attempting to sell to these nations because it is the leader of the alliance in which they seek membership and one of the most ardent advocates of admitting them.) The only cost accruing to the United States from Visegrad nations' upgrading older weapon systems and buying new ones is assumed to be the expense of providing Foreign Military Financing (FMF) grants of about 10 percent of the purchase price. CBO estimates the total cost of U.S. FMF grants to be about \$800 million. CBO also assumed that Germany would provide the same amount of money through grants.

Buying Tankers for European Air Forces to Project Power. One further improvement that might be needed is to increase the range of Western European tactical fighter aircraft so that they could fly from German bases to defend a Visegrad state under attack. Although the United States has 515 tanker aircraft for its Air Force, most of its NATO allies have minimal or no ability to refuel tactical aircraft in the air. France has only 13 tankers available, the United Kingdom only 12, and Germany none. If a Visegrad nation needed to be reinforced by tactical aircraft based in neighboring NATO nations (principally Germany), those aircraft would benefit greatly from having tankers available. For example, flying from bases in western Germany to eastern Poland and back requires most NATO tactical aircraft to fly near or exceed their maximum combat radius. When refueled by tankers, these aircraft can fly to targets at greater ranges or drop heavier loads of weapons. To provide tanker aircraft for Western European air forces would require buying, operating, and supporting 54 tankers costing \$5 billion. None of those costs would accrue to the United States.

Enhancing Local Forces to Project Power (Poland Only). As noted earlier, although a small portion of Polish forces has been moved east from Cold War deployment

positions in the western part of the country, financial constraints have prevented most forces from being relocated eastward. It is very expensive to build new facilities and bases in eastern Poland to station forces there. For example, redeploying six Polish divisions in western Poland to new bases in the eastern part of that country would cost about \$20 billion. Yet most threats to Poland's security would probably come from the east, and the country has a relatively large area and flat terrain. Therefore,

**TABLE 3. UPGRADING OLDER WEAPONS AND BUYING NEW ONES:
PROJECTED NEEDS OF THE VISEGRAD NATIONS**
(In billions of 1997 dollars)

System	Quantity	Total Cost	Cost to the United States
Use New Electronic Systems for MiG-21 Aircraft ^a	400	1.66	0.08
Eventually Replace Other Soviet-Built Aircraft with Western Aircraft	350	8.61	0.36
Buy Western Precision-Guided Munitions for Aircraft	8,900	0.70	0.03
Buy Western Air-to-Air Missiles for Aircraft	10,700	0.66	0.04
Buy Western Electronic Warfare Equipment for Aircraft	400	0.13	0.01
Buy New Electronic Systems for the T-72 Tank	1,400	1.36	0
Buy Western Antitank Weapons	125,100	3.05	0.14
Buy New Locally Produced Tank or Western Tank to Replace the T55 Tank	1,150	3.04	0.12
Total	n.a.	19.21	0.78

SOURCE: Congressional Budget Office.

NOTE: n.a. = not applicable.

a. CBO assumed that a more modern fighter/attack aircraft, the MiG-29, would only need a new Identification Friend or Foe (IFF) system. The costs of providing new IFF systems for this aircraft are covered under the section on air defense improvements.

the Polish government has recognized the need for its forces to project power. To do so, those forces need more combat support, including a reinforcing artillery brigade, more air defense, and additional helicopters for lifting troops. They would also need more support to make them more agile, including combat engineers, military police, communications, medical units (including a combat support hospital), maintenance and mobile repair units, and self-contained logistics (for example, ammunition handling and storage) and transportation (trucks and heavy equipment transporters).

In some nations, during wartime the military contracts with civilian organizations to provide support capabilities--for example, civilian trucks, buses, bulldozers, and excavators. According to a press report, however, the end of the Cold War has made private and state industries less willing to honor the Polish government's mobilization requirements. That development may be an argument for buying capabilities for projecting power that are owned and operated by the military.

Yet such forces are usually more expensive than civilian assets. CBO estimates that it would cost more than \$900 million to outfit each Polish division with capabilities to project power. Therefore, outfitting all six mechanized divisions in western Poland would cost about \$5.8 billion. If Germany, the United States, and the SIP each agreed to help finance 10 percent of such improvements, CBO estimates that the costs to the United States would be about \$700 million. Although NATO nations are usually required to equip and provide infrastructure for their own forces, SIP financing might be possible because of an exception based on Poland's limited ability to pay infrastructure costs.

Making Naval Improvements (Poland Only). Poland is the only Visegrad nation with a sea coast. During an attack on any one of the Visegrad nations, the ports of Gdansk, Gdynia, and Szczecin on Poland's northern coast might be used to bring in NATO supplies and reinforcements and act as a base of operations for NATO and Polish ships guarding the naval lines of communication (supply routes) through the Baltic Sea (see Summary Figure 1). Although not large, Poland's navy might assist NATO navies by clearing mines, hunting for any hostile submarines (antisubmarine warfare), and helping to engage any hostile surface ships.

Poland's navy could be improved by purchasing Western-designed mine-hunting sonars for its 24 mine-clearing ships and antisubmarine sonars for its one destroyer and one frigate. In general, the electronics on all Polish naval vessels would be upgraded: three coastal boats, 22 patrol boats, seven missile craft, four corvettes, and one destroyer and one frigate. In addition, Soviet-era coastal radars, designed to detect such hostile naval and air traffic, would probably have to be replaced with Western radar systems and linked to NATO's maritime headquarters and the NATO air command and control system.

Once again, although Poland will have to pay for such modernization, the state of its economy may require NATO nations to provide FMF grants. CBO estimated that naval improvements would cost \$1.1 billion. As with other imports of weapons by Visegrad states, CBO assumed that the United States would get a 47 percent share of Poland's imports for naval systems (the U.S. share of world arms exports). If Germany and the United States each provided 10 percent of the value of their naval exports to Poland in FMF grants, the cost to the United States would be less than \$100 million.

Improving Infrastructure. If required, improving infrastructure in the Visegrad states would facilitate NATO resupply or reinforcement. To receive NATO supplies and reinforcements, Polish ports would need modest upgrades. In the rare event of a large assault on Poland from an aggressive and militarily potent Russia, however, Polish ports might not be used for such purposes. They might be too close to the front (except the port of Szczecin in western Poland) and require ships to pass through the constricted straits between Denmark and Scandinavia and into the Baltic Sea. Because NATO ships might come under attack from Russian submarines and aircraft, NATO might instead decide to use German or even Belgian and Dutch ports. Supplies, troops, and equipment would then come across Europe by road and rail to Poland.

In most other scenarios, however, Polish ports might be useful for NATO resupply and reinforcement. If any one of the four Visegrad nations was attacked by a country other than Russia, Polish ports and the sea lines of communication to them would probably not be disrupted. NATO supplies and reinforcements could flow into Polish ports and then by road and rail to where they were needed in the Visegrad region.

Although the three Polish ports of Gdynia, Gdansk, and Szczecin have limitations, they would need only modest upgrades to fulfill military requirements. According to the World Bank, Gdansk and Szczecin have limited road access. Moreover, according to the U.S. Transportation Command, the two ports have limited container-handling equipment (cranes). Containers are standard storage compartments that are used in commercial maritime transportation but can also be used to haul nonvehicular military equipment, such as ammunition. As a measure to improve the economy, the Polish government is currently attempting to increase the low volume of containers moving through Polish ports. Also, the World Bank is currently appraising projects to improve road access to Gdansk and Szczecin. Therefore, CBO assumed that these port improvements would be financed for commercial reasons and did not include them in its estimate of the costs for NATO expansion.

Szczecin, because of its location in western Poland--farther away from any potential front in eastern Poland--might be important enough militarily for the government to fund improvements from the defense budget. The port is obsolete, has poor rail access, and has a shortage of facilities for roll-on, roll-off ships (RO/ROs) carrying military vehicles. Like Gdansk and Gdynia, Szczecin might need to be dredged to accommodate fully loaded fast sealift ships. (Szczecin also is not capable of accommodating large NATO warships.) CBO assumed that all of those expenses would be included in the costs of expanding NATO.

Whether supplies and equipment are brought in through Polish ports or come overland through Germany, the Visegrad countries need to upgrade their rail and road network to transport them. The Warsaw Pact invested greatly in road and rail routes that ran east to west, but it used them heavily and did little maintenance. There is a shortage of roads running north to south and roads with four lanes (most have only two lanes). So existing roads would have to be repaired, strengthened, and widened, and north-south roads would have to be built.

The rail systems in the Visegrad nations, according to one analyst, are 20 to 30 years behind those of the West. They have aging rolling stock (engines and train cars), bad rails, bad ballast (rocks between the rails), dilapidated buildings, and poor tunnels and underpasses, all of which slow trains. Each of those items needs to be upgraded. The rail system also needs to be automated to allow the switching of trains by computer.

In anticipation or as a result of economic growth, the governments of the Visegrad nations--with the help of international organizations, such as the European Bank for Reconstruction and Development--may make most of these port, road, and rail improvements for commercial reasons. But if economic growth is slower than expected or the capital for these investments does not become available, military capability could be impaired. In the three categories, CBO assumed that only the expenses of certain port improvements (dredging, improving access for RO/ROs, and enhancing rail connections) and 10 percent of the road and rail improvements would be counted toward the costs of expanding NATO. The 10 percent figure represents the militarily critical improvements to the road and rail systems.

Under NATO's draft guidelines, militarily critical port improvements can be financed through the SIP. CBO estimates that port improvements would cost \$56 million and that the U.S. share of such assistance would be \$12 million. In addition, CBO estimates that militarily critical improvements to the road and rail systems of Visegrad nations would cost about \$3 billion. Although road and rail projects would not normally be funded by the SIP, exceptions can be made for nations that cannot afford such improvements. CBO assumed that Germany, the United States, and the

SIP would each fund 10 percent of those militarily critical items. Therefore, U.S. expenses are estimated to be \$360 million.

Thus, the total expenses for improving infrastructure that were assumed to count toward the costs of expanding NATO were \$3 billion. Of that amount, CBO estimated costs to the United States at about \$370 million.

Exercise Facilities. Option I also assumes that the Visegrad countries would build large-scale exercise facilities for ground and air forces. Those facilities would allow NATO forces to exercise on Visegrad territories. Normally, portions of such NATO facilities "over and above" national needs are eligible for SIP funding. CBO assumed that such large-scale, modern multinational training facilities would not be built in the Visegrad states if they did not join NATO. Furthermore, if multiple users conduct exercises at the facilities, the SIP usually provides funding. Therefore, the SIP was assumed to finance the entire cost of the project. CBO assumed that NATO's military budget would finance the cost of operating and maintaining the facilities. CBO estimates that those facilities would cost \$4.7 billion and that the U.S. share would be \$1 billion.

Visegrad Stocks of Fuel and Ammunition. (Under this option, the Visegrad militaries would purchase fuel and ammunition stocks to last 30 days, construct hardened, environmentally controlled bunkers for storage, and pay to operate and support such facilities. CBO estimated that the total cost for those facilities would be \$600 million. Because the stocks would be used by their own forces, the Visegrad nations would have to pay for those items themselves. As a result, CBO assumed no costs would accrue to NATO or its member nations.

CONCLUSION

The above set of actions constitute improvements designed to begin to integrate the military forces of the Visegrad nations with those of their NATO allies. That package would cost about \$61 billion over a 15-year period. Under CBO's costing assumptions, which were noted earlier, the Visegrad countries would pay \$42 billion, or about 70 percent of those costs, themselves; their NATO allies would contribute the remaining \$19 billion, of which the U.S. share would be about \$5 billion.

If the Visegrad nations paid \$42 billion over the 15-year period from 1996 to 2010, they would need to increase their small investment budgets by almost \$3 billion per year. They currently invest about one-sixth of that sum--about half a billion dollars a year (roughly 10 percent of the \$4.6 billion in combined defense spending). In other words, to execute the program, the Visegrad states would have to increase investment by almost 600 percent. That goal might be possible if

economic growth led to increased defense spending or priorities were substantially rearranged in Visegrad defense budgets so that more could be spent on investment.

Increasing investment spending by that magnitude would cause the average yearly collective defense spending for the four nations to increase by about 60 percent. Based on the sum of those nations' gross domestic products (GDPs) for 1995, combined defense spending would need to rise from 2.2 percent of GDP to about 3.6 percent of GDP to cover those costs.¹ Poland's defense spending would need to increase from 2.4 percent of GDP to 3.8 percent; Hungary's from 1.5 percent to 2.6 percent; the Czech Republic's from 2.5 percent to 3.6 percent; and Slovakia's from 3.1 percent to 4.6 percent.

But such added costs might be difficult for those nations to afford. In addition, according to public opinion polls in all of the Visegrad states, their populations do not support increases in the proportion of government spending devoted to defense.

If the Visegrad nations cannot afford all of the items in Option I (shown in Table 2), they might be able to select a subset of the most critical items (the first three improvements) totaling \$21.2 billion during the 1996-2010 period. The subset would include increasing training and conducting more exercises with NATO forces; improving command, control, communications, and intelligence; and enhancing air defenses and integrating them with NATO. The cost of those items for the Visegrad states would be \$15.6 billion. The remainder of the costs would be picked up by existing NATO allies (\$1.9 billion for the United States and \$3.7 billion for the European allies). Although that subset of items would improve the ability of the Visegrad militaries to operate with NATO forces, it would still only marginally improve those nations' defenses.

The following chapter looks at further actions that the NATO countries might take to enhance the security of their new allies. Because those actions assume more direct involvement of the forces of current NATO members, their costs would be borne more directly by the United States and its current NATO allies.

1. Because the Visegrad states are making the transition from communism to capitalism, it is uncertain whether there will be positive or negative growth in their economies in each year from 1996 through 2010 or exactly what the rate of change will be. Therefore, as a simple indicator of the magnitude of the burden their economies face to finance expansion, figures from 1995 for defense spending and gross domestic product are used.

CHAPTER IV

OPTIONS TO FURTHER ENHANCE THE SECURITY OF THE VISEGRAD STATES

This chapter looks at ways to improve the capability of the North Atlantic Treaty Organization to mount an effective, integrated defense of the territory of the Visegrad states. Each of the options is envisioned as an incremental increase in military capability, political capability, and cost to the options that precede it in the discussion. All improvements contained in the options in this chapter are added to the enhancements made to Visegrad forces and infrastructure in Chapter III. Unlike improving local forces--which would provide a defense for a border skirmish or limited war with a regional power--the options in this chapter would attempt to provide an Article V defense against an aggressive and militarily potent Russia.

Options in this chapter also represent different perspectives on providing an adequate defense for the Visegrad nations. Should a crisis occur, the first of these more ambitious options (Option II) would relocate NATO aircraft from Germany and other bases in Europe to prepared operating bases in the Visegrad nations. From there, according to advocates of airpower as the dominant force in warfare, they could be used to attack decisively and halt an invading enemy force. Even more ambitious is Option III. That option would, in the event of a crisis, also prepare facilities in the Visegrad states where NATO ground forces from Germany would be deployed to deter attack or to defend those nations if deterrence failed. Advocates of this more traditional view believe that substantial friendly ground forces are needed to stop an attacker with heavy forces. Option IV would preposition stockpiles of military equipment in the Visegrad states so that forces could be flown in to operate them in a time of crisis. That option would allow heavy NATO ground forces to arrive at the front faster during the most dangerous early stages of a crisis when local forces are in the most danger of being overrun. Option V--the most ambitious of all--would station a limited number of non-German NATO ground and air forces (equipment and personnel) on the territory of the Visegrad states (the forces would be drawn from those now based in Germany). Those forces would provide an early defense and also act as an even stronger political symbol of NATO's commitment to defend those states than would prepositioned equipment. The forces would also organize training exercises and maintain facilities that would receive larger forces in time of war.

If the parliaments of the 16 member nations actually voted to expand NATO, the current low-threat environment would probably allow those legislative bodies to spend as much or as little as they chose to carry out the expansion. Should the threat

increase--that is, if Russia dramatically improved the readiness of its existing forces--the more ambitious and costly options cited above would need to be considered.

OPTION II: PROJECT NATO AIR POWER EAST TO DEFEND THE VISEGRAD STATES

This option adopts an alternative developed by some analysts to use the improved Visegrad forces (see Chapter III) as a holding or delaying force so that NATO air power, operating from bases on the territory of new member states, could destroy enemy forces. In Option I, the presumption was that the air forces of current NATO members, if needed to reinforce Visegrad forces, would operate from their existing bases in neighboring nations (Germany, Italy, and the United Kingdom). In this option, NATO air power would be deployed to and operate from prepared bases in the Visegrad nation when that country was under threat. This option is similar to a situation in which some of the U.S. aircraft helping a ground force of primarily local units initially defend South Korea would fly from Japan to prepared bases on the Korean peninsula.

This option has its pros and cons. Flying from prepared bases--called co-located operating bases, or COBs--is a much more efficient way of conducting air operations than flying aircraft from bases in Western Europe. As a result of decreasing the distance to targets, efficiency would be enhanced by increasing the number of sorties aircraft could fly, increasing the number of weapons they could carry, and reducing fuel consumption. According to some Air Force officials, preparing a Visegrad nation's air bases to receive NATO aircraft in time of crisis also sends a signal of NATO's commitment to defend that country. Building COBs in the Visegrad states would eliminate the need to buy tankers for Western European air forces cited in Option I.

Alternatively, operating aircraft from COBs in the Visegrad states has its disadvantages. Being closer to the enemy means that the enemy is closer to you. Using COBs would require that an effective air defense system ensured air supremacy over the Visegrad nations so that allied bases and aircraft were not subject to damage from enemy action. Although Russia's air power after the Cold War has greatly declined in both numbers of aircraft and readiness, it still possesses large numbers of aircraft and a substantial military capability.

Operating aircraft from Germany rather than creating COBs is less costly, probably less threatening to Russia, and less likely to lead to the suppressing or destroying of aircraft because Germany is politically and militarily harder to attack than the Visegrad nations. Air Force officials also note that conducting air operations

from Germany might be more effective because of its better support structure, including better communications and access to national intelligence sources.

Although ignoring whether NATO aircraft would be based in Germany or Poland, a RAND wargaming model--with assumptions similar to those of the Congressional Budget Office on the Russian threat and the number of defending NATO aircraft--showed that NATO aircraft, in combination with a holding force of unimproved Polish ground forces, could successfully halt the advance of a potential Russian attacker.¹ CBO's option might be even more effective against this threat because it would improve Poland's forces significantly.

CBO estimated that preparing to project air power east to defend the Visegrad states would add \$18.6 billion to the cost of expansion (see Table 4).² Of that amount, the cost to the United States was estimated at \$4.6 billion, the cost to NATO allies at \$10.3 billion, and the cost to new members at about \$3.6 billion.

Create Colocated Operating Bases

Several actions would need to be taken to create COBs in the Visegrad states and support them. This option assumes that sufficient numbers of COBs would be created in the Visegrad states to house 11½ wings of NATO aircraft (eight of 10 air wings of the German air force, one British air wing based in Germany, and the two and one-half U.S. air wings now based in Europe). In other words, if a Visegrad nation was attacked, the alliance would be expected to deploy most existing NATO aircraft based in Germany plus all U.S. aircraft based in Europe. (Two German air wings would remain in Germany for air defense.) Because Western defense budgets are declining, creating COBs for any more than 11½ air wings is probably not an effective alternative. If additional aircraft from NATO allies or the continental United States needed to be used in any conflict, however, they could be deployed to Germany and fly from the bases left empty by aircraft being deployed forward to COBs in the Visegrad states. As a result, no added facilities would be needed for those supplemental aircraft.

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1. Charles Kelley Jr., Daniel Fox, and Barry Wilson, "A First Look at Options for Poland," in Paul Davis, ed., *New Challenges for Defense Planning: Rethinking How Much Is Enough* (Santa Monica, Calif.: RAND, 1994), pp. 451-476.
 2. Because creating COBs in the Visegrad states would eliminate the need to buy tankers for European air forces, the costs of the tankers have been subtracted to arrive at this figure.

To create a COB for NATO aircraft to be deployed to and operate from in time of crisis would involve modifying an existing air base in a Visegrad state. In general, the Visegrad nations have sufficient airfield space today to support the deployment of NATO aircraft because they have reduced the size of their own air forces. Extensive modifications to Visegrad air bases, however, would probably be needed because most are in poor condition. Runways would need repair and reinforcement. New command, control, and communications equipment and modern air traffic control facilities would probably be needed. Additional hangar space (hardened shelters) and upgraded barracks, mess halls, and maintenance and repair shops would be required. After the COBs were created, costs would also be incurred to operate and support them.

The Congressional Budget Office estimates that creating, operating, and supporting COBs in the Visegrad states for 11½ wings of NATO aircraft would cost \$8 billion (this figure includes short-range air defense systems that would be

TABLE 4. SUMMARY OF THE COSTS FOR THE 1996-2010 PERIOD TO CARRY OUT OPTION II: PROJECT NATO AIR POWER EAST (In billions of 1997 dollars)

Activity	Cost to the United States	Cost to U.S. Allies	Cost to Members	Total Cost
Create and Operate and Maintain COBs (Including air defenses)	1.8	5.9	0.3	8.0
Stockpile Ammunition and Fuel Near Bases	1.8	5.7	0.3	7.7
Extend NATO Pipeline to COBs	0.1	0.3	0	0.4
Make Improvements So Allied Aircraft Can Project Power	0	0.8	0	0.8
Conduct Exercises	1.0	2.6	3.0	6.6
Eliminate the Need for Tankers in Option I	<u>0</u>	<u>-5.0</u>	<u>0</u>	<u>-5.0</u>
Total	4.6	10.3	3.6	18.6

SOURCE: Congressional Budget Office.

NOTE: NATO = North Atlantic Treaty Organization; COBs = colocated operating bases.

needed to protect the bases because they were close to the front). Because those expenses would be eligible for funding by the Security Investment Program, CBO estimates the cost to the United States to be \$1.8 billion.

Stockpile Extra Ammunition and Fuel

Enough fuel and ammunition would be stockpiled at the COBs to last the aircraft being deployed there for 30 days. The United States and NATO nations would need to purchase fuel and ammunition, so those expenses would be their responsibility. Tanks and environmentally controlled bunkers would have to be built, operated, and supported. CBO assumed that NATO would pay for building those facilities and operating and maintaining them.

CBO estimates that the total cost of stockpiling fuel and ammunition would be \$7.7 billion. U.S. costs are estimated at \$1.8 billion.

Extend the NATO Pipeline to Colocated Operating Bases

The NATO pipeline system, complete with pumping stations, would be extended to distribute fuel to all COBs in the Visegrad states. The SIP would finance the cost of constructing the extension, and NATO's military budget would pay the cost of operating and maintaining it. CBO estimates that extending the NATO pipeline to all COBs would cost about \$400 million. Estimated cost to the United States would be about \$100 million.

Allow NATO Aircraft to Project Power

To be deployed to COBs in the Visegrad states during a contingency, non-U.S., allied aircraft would need mobile engineers, maintenance units, medical units, and other support assets that are already contained in U.S. air wings. CBO estimates that those items would cost \$800 million. Because those enhancements are the responsibility of allied governments, however, the United States would not incur any costs.

Hold More Frequent Exercises

More frequent exercises (once every two years) would be held using U.S. and West European aircraft, operating from COBs, to supplement Visegrad air and ground forces during a crisis. Member nations are usually responsible for financing the cost of fuel and other operations and support to participate in NATO exercises. However,

because the Visegrad nations are unlikely to be able to pay the entire cost of sending their forces, CBO assumed that Germany and the United States would each pay 10 percent of their costs. In addition, NATO's military budget usually finances some of the costs of setting up the exercise. CBO assumed that this expense would be 10 percent of the total cost.

CBO estimates that more frequent NATO exercises in the Visegrad states would cost an added \$6.6 billion during the 1996-2010 period. The cost for U.S. forces both to participate and to finance 10 percent of Visegrad expenses is estimated at \$1 billion.

OPTION III: PROJECT POWER EASTWARD WITH GROUND FORCES BASED IN GERMANY

When a Visegrad nation was under threat, this option would add ground forces to the air power flowing east. Almost all of the 11 NATO divisions based in Germany--six of seven German divisions, one French division, one British division, one-third of a Belgian division (one brigade), one-third of a Dutch division (one brigade), and one and one-third U.S. division equivalents (four brigades)--would move east to facilities in the Visegrad nations. (One German division would remain in Germany for defensive purposes; it could be augmented by other allied forces from their home countries if needed.)

This option also relies on five prepositioned stockpiles of weapons (equivalent to five brigades) located in Luxembourg, Italy, and the Netherlands. In time of crisis, the personnel to operate that military equipment would be flown in from the United States. After the equipment was manned with airlifted personnel, the equipment would be driven overland to a Visegrad state under threat. Therefore, a total of 11½ divisions would be available to defend the Visegrad states. Because those forces seem formidable enough to counter the worst-case threat of a resurgent, aggressive, and militarily potent Russia and because NATO countries seem unwilling to increase the size of forces stationed forward, CBO assumed a defense composed of existing forces. Furthermore, if other reinforcements from NATO nations or the United States were needed, they could join the battle later, but they would not need to have reception facilities built for them in the Visegrad nations.

Planning to send Western ground forces to assist a Visegrad state under threat of attack offers several advantages. First, planning to send ground forces in this situation is often considered a greater symbol of commitment to defend an ally than is planning to send only air power. Second, a stronger defense can be mounted when both air and ground power are sent before an attack. More combat power can be amassed, and the enemy must fight simultaneously against the synergistic effects of

both ground and air power. Third, although NATO and Visegrad aircraft and Visegrad ground forces might be able to stop an attack, a rapid counteroffensive to regain any lost territory might be difficult without NATO ground forces.

Committing ground forces also has several disadvantages. First, it puts large numbers of NATO military personnel at risk. Second, it raises the stakes of the conflict and could turn a lesser dispute into a wider conflict. Third, German forces--the core of those sent to assist the Visegrad states--would need the ability to project power. That ability might cause concern among other Western European allies or Russia.

Improvements needed to move ground forces eastward in time of crisis would raise the cost of expansion. CBO estimates that the total cost to add ground forces to the air power flowing east would be \$30.1 billion. Of that amount, the cost to the United States is estimated at \$3.6 billion; to NATO allies, \$20.3 billion; and to new members, \$6.2 billion (see Table 5).

Enhance Allied Ground Forces to Allow Them to Project Power

Several steps would need to be taken so that ground forces could flow east if a Visegrad state was threatened. The forces of the Western European allies have only a limited ability to move from their bases in Germany. Hence, because the Germans are providing over half of the divisions that would flow eastward in this scheme of defense, it is particularly crucial that they develop the capabilities to project power. Once again, to project power, those forces need more combat support, such as a reinforcing artillery brigade, more air defenses, and additional helicopters for lifting troops. They also need more support to make them more agile, such as additional combat engineers, military police, maintenance and mobile repair units, self-contained logistics (for example, ammunition handling and storage) and transportation (trucks and heavy equipment transporters), better communications, and medical units (including a combat support hospital).

In many NATO nations, the military now contracts with civilian organizations to provide some of the support capabilities. That procedure might be adequate for allied forces defending-in-place in Germany, but it might not be adequate if those forces flowed east to defend a Visegrad state. Using military assets to project power, however, is usually more expensive than using civilian assets. If all eight and two-thirds non-U.S. allied divisions in Germany were so outfitted, it would cost about \$12.9 billion. Because NATO requires national forces assigned to it to provide their own weapons and support and because U.S. forces already possess most of those assets, no cost to the United States would accrue. Existing NATO allies would be required to pay the entire cost.

Make U.S. Forces in Germany More Mobile

Although U.S. forces have a much greater ability to project power on the ground than allied armies, they experienced some deficiencies in mobility during the Persian Gulf War. The United States suffered a shortage of heavy equipment transporters and heavy vehicles. During the Cold War, high-quality Western European railroads lessened the need for such vehicles. Because the railroads in the Visegrad nations are much less adequate and modern precision-guided weapons make them vulnerable, such vehicles might become more important if NATO forces had to defend those nations in a crisis.

CBO estimates that the added number of vehicles needed to completely fill out the four U.S. brigades stationed in Germany and to haul the five sets of pre-positioned equipment (five brigades) would cost \$1.2 billion. Because nations are usually required to pay most expenses for equipping and supplying their forces, the United States would be required to finance all of those costs.

TABLE 5. SUMMARY OF THE COSTS FOR THE 1996-2010 PERIOD TO CARRY OUT OPTION III: PROJECT POWER EASTWARD WITH GROUND FORCES IN GERMANY (In billions of 1997 dollars)

Activity	Cost to the United States	Cost to NATO Allies	Cost to New Members	Total Cost
Enhance Allied Ground Forces for Power Projection Missions	0	12.9	0	12.9
Make U.S. Forces in Germany More Mobile	1.2	0	0	1.2
Create Reception Facilities for Ground Forces (Including air defenses)	0.7	2.3	0.1	3.1
Extend the NATO Pipeline	0	0.1	0	0.2
Stockpile Fuel and Munitions	0.2	0.8	0	1.1
Conduct Regular Large-Scale Exercises in the Visegrad States	1.5	4.2	6.0	11.8
Total	3.6	20.3	6.2	30.1

SOURCE: Congressional Budget Office.

NOTE: NATO = North Atlantic Treaty Organization.

Create Reception Facilities for Ground Forces

NATO ground forces flowing east to reinforce the Visegrad nations would need facilities in those nations to receive them. Reception facilities for ground forces could be located at abandoned bases in the Visegrad states to take advantage of some of the existing infrastructure. Reception facilities include upgraded barracks, mess halls, and facilities for maintaining equipment. They also include hangars for helicopters, rail sidings and facilities for unloading train cars, and parking lots to rearrange equipment from its configuration for transportation to its configuration as fighting units. Reception facilities at existing air bases include extra hangars for aircraft and warehouses to store incoming material. Since reception facilities would be fairly close to the front, short-range air defenses would also be needed to protect them from attack.

The cost of creating reception facilities would be \$3.1 billion. Because such costs are eligible for the Security Investment Program, the costs to the United States are estimated at \$700 million.

Extend the NATO Pipeline

NATO would extend its fuel pipeline to all such staging and marshaling areas. CBO estimates that such an extension would cost about \$200 million. Because such costs are eligible for the SIP, CBO estimates that costs to the United States would be less than \$100 million.

Stockpile Fuel and Munitions

Thirty days' worth of fuel and ammunition for incoming NATO forces would be purchased and stockpiled in tanks and hardened environmentally controlled bunkers, respectively. Purchasing the fuel and ammunition is a national responsibility. But NATO would finance building the facilities and operating and maintaining them. CBO estimates that the total cost would be \$1.1 billion and the cost to the United States would be about \$200 million.

Exercises in the Visegrad States

Conducting more regular (once a year) large-scale exercises would be necessary, with NATO forces flowing east to reception facilities and COBs in the Visegrad states and U.S. forces flying in to join their five brigades of prepositioned equipment in Western Europe.

Normally, each nation must pay its own costs for participating in NATO exercises. Because the Visegrad nations are unlikely to be able to pay the entire cost of participating, however, CBO assumed that Germany and the United States would each pay 10 percent of their costs. In addition, NATO's military budget usually finances some of the costs of setting up the exercise. CBO assumed that expense to be 10 percent of the total cost.

CBO estimates that more frequent NATO exercises in the Visegrad states would cost an added \$11.8 billion during the 1996-2010 period. The cost for U.S. forces to both participate and finance 10 percent of Visegrad expenses is estimated at \$1.5 billion.

OPTION IV: MOVE STOCKS OF PREPOSITIONED EQUIPMENT EAST

Instead of transporting forces generated from five sets of prepositioned military equipment overland from Western Europe (their current location) in time of crisis, those stocks could be permanently stationed near air bases in the Visegrad states. During a crisis, troops from the continental United States would fly into the air bases to join their equipment that was located in concealed areas.

Stationing the prepositioned equipment in the Visegrad states would allow the five U.S. brigades to respond to a threat in those nations much more quickly. The move would save the time needed to transport the equipment overland through Western Europe. Alternatively, with the end of the Cold War, the United States has already paid to restation equipment from Germany to locations nearer to Dutch and Belgian ports (in the Netherlands and Luxembourg) so that it could be shipped quickly to points of crisis outside the area of the North Atlantic Treaty.

Stationing the equipment instead in the Visegrad states might make getting the equipment to certain "out-of-area" operations slower and more difficult. That dilemma may illustrate a larger conflict between the goal of admitting new members and tailoring forces to defend them and the goal of responding to out-of-area crises quickly. Yet if these forces needed to be deployed to the Balkan countries, they might be closer to their destinations. Although Russia might view prepositioned equipment in the Visegrad states as a threatening gesture, it might also see it as less provocative than permanently stationing NATO forces in those nations.

Although the equipment already exists for those stocks, moving it across Europe and building facilities to hold it would incur costs. Some maintenance facilities might also need to be built. CBO estimates that such actions would cost an added \$1.2 billion (see Table 6). The costs to the United States are estimated at \$300 million. The European allies would finance most of the remaining \$900 million; the

cost to new members would be less than \$100 million. The costs of moving the equipment would accrue to the United States, whereas SIP would cover the costs of building storage and maintenance facilities and operating and maintaining them.

OPTION V: STATION A LIMITED NUMBER OF FORCES FORWARD

Under this option, limited numbers of NATO forces would be permanently stationed on the territories of new member states. Two and two-thirds division equivalents of ground forces (one U.S. division equivalent, two French brigades, two British brigades, and one Dutch brigade) and one British and one American air wing--all now based in Germany--would be permanently stationed in the Visegrad states. If a Visegrad state was threatened, however, most air and ground forces would continue to move east from their bases in Germany and other parts of Europe--that is, six of seven German divisions, one and one-third division equivalents of allied ground forces (one brigade from Belgium, France, the United Kingdom, and the United States still stationed in Germany), eight German air wings, and the one and one-half U.S. wings based in Italy and the United Kingdom.

Considering the political sensitivities in Europe of German forces being stationed outside Germany, CBO assumed that none of the forces stationed in the Visegrad states would be German. It was also assumed that a small number of forces

TABLE 6. SUMMARY OF THE COSTS FOR THE 1996-2010 PERIOD TO CARRY OUT OPTION IV: MOVE STOCKS OF PREPOSITIONED EQUIPMENT EAST
(In billions of 1997 dollars)

Activity	Cost to the United States	Cost to NATO Allies	Cost to New Members	Total Cost
Move Prepositioned Equipment from Western Europe to the Visegrad States	0.02	0	0	0.02
Build Storage Sites and Maintenance Facilities for the Equipment	0.27	0.89	0.05	1.21
Total	0.29	0.89	0.05	1.23

SOURCE: Congressional Budget Office.

NOTE: NATO = North Atlantic Treaty Organization.

from each of four allied nations would remain based in Germany as an additional means to reassure European nations. The rest of the allied troops in Germany would be restationed forward in the Visegrad states.

CBO did not analyze an option to station large numbers of forces in the Visegrad states for a number of reasons. Although stationing large numbers of forces there would allow a more rapid defense, it might have disadvantages militarily. In an environment in which both the threat and the threatened nation were uncertain, stationing such large forces forward might lead to an inflexible defense. The lack of north-south roads in the Visegrad states and vulnerable mountain passes in Slovakia might preclude the shifting of forces from their permanent stations to the allied country being attacked.

Russia would probably react strongly to a large permanent presence by NATO forces in the Visegrad states. Also, permanently deploying large numbers of forces would require either stationing German forces on foreign soil or using more troops from other allies, including the United States. The first alternative could cause fears of renewed German expansionism and the second is probably politically infeasible given the trend in NATO of withdrawing forces from foreign soil. Finally, the cost of facilities to support the permanent stationing of large numbers of forces is probably prohibitive, especially given the decline in the defense budgets of most NATO nations. CBO estimates that it would cost an added \$56 billion to station 10 ground divisions and 11½ air wings permanently in the Visegrad states.

In a time of little and uncertain threat, stationing a smaller number of forces forward and holding the bulk of forces in Germany as a mobile reserve to reinforce any Visegrad nation under threat of attack would provide a more flexible defense. That is, there may be a positive trade-off between improving road and rail transportation to improve the speed of reinforcement (see Option I) and the costly stationing of large numbers of forces. Russia might still have an adverse reaction to that smaller forward contingent, but it would probably be less severe than if large numbers of forces were stationed forward. Also, stationing only a small number of non-German forces in the new member states would send a political signal of NATO's commitment to defend them. At the same time, it would limit costs, the number of allied troops stationed on Visegrad soil, and fears of renewed German expansionism.

CBO's military options were designed with the current security situation in East Central Europe in mind. In the unlikely event that Russia abrogated its commitments under the Treaty on Conventional Forces in Europe, began to increase the size of its armed forces substantially, and undertook a more aggressive foreign policy toward the East Central European region, the NATO countries would probably have

to incur the high costs of permanently stationing large numbers of forces there to guarantee a credible defense of the Visegrad states.

If a decision was made to base small numbers of forces permanently in the Visegrad nations, they would probably be stationed at local bases made available by the post-Cold War reduction in Visegrad military forces. Based on unclassified information from U.S. intelligence agencies, the poor condition of those bases would require extensive rehabilitation of existing facilities and many new ones to bring them up to Western standards.

CBO estimated that the added cost to station a limited number of NATO ground forces in the Visegrad nations would be \$14.2 billion. The SIP would pay the costs to construct or rehabilitate operational facilities, such as runways or hangars for aircraft. Countries stationing forces are required to pay for their own support facilities, such as facilities for dependents and morale, welfare, and recreation. Most of the operational facilities, however, were financed under Option II and III; thus, the incremental cost of Option V would be mainly for support facilities. The added cost to the United States was estimated at \$5.5 billion and the cost to the NATO allies at \$8.7 billion; the cost to new members was negligible.

To base forces permanently in the Visegrad nations, the following items will need to be financed (see Table 7).

Bases for Ground Forces

The bases will need modern barracks, mess halls, storage facilities, commissaries, schools, hospitals, family housing, and facilities for morale, welfare, and recreation (so-called MWR), which include gymnasiums and child development centers. Because those are not operational facilities, they would have to be financed by the countries stationing the forces. CBO estimates that the facilities for two and two-thirds divisions of NATO forces stationed forward would cost \$12.5 billion. Stationing the equivalent of one division of U.S. ground forces forward is estimated to cost \$4.7 billion.

Main Operating Bases for Air Wings

Unlike COBs, which are bases in a host nation used by NATO aircraft only during a crisis, main operating bases (MOBs) are used for permanently stationing NATO aircraft. MOBs have more permanent facilities than COBs. In addition, all of the facilities for dependents of military personnel and morale, welfare, and recreation needed for ground force bases would also be required for MOBs. Because those are

not operational facilities, they would have to be financed by the countries stationing the forces. Creating MOB's for two air wings (one British and one American) was estimated to cost \$1.1 billion. The cost for the U.S. air wing's MOB was estimated at about \$600 million. (See Box 1 for a discussion of the implications if NATO decided to station nuclear weapons on the territories of Visegrad states.)

Expenses for Moving the Forces East

NATO members would incur costs to move air and ground forces from bases in Germany to new bases in the Visegrad states. Each nation is required to pay the costs of moving its own forces forward. CBO estimates that those expenses would be \$70 million. The cost to move one wing of U.S. air forces and one division equivalent of U.S. ground forces was estimated at \$30 million.

TABLE 7. SUMMARY OF THE COSTS FOR THE 1996-2010 PERIOD TO CARRY OUT OPTION V: STATION A LIMITED NUMBER OF FORCES FORWARD
(In billions of 1997 dollars)

Activity	Cost to the United States	Cost to NATO Allies	Cost to New Members	Total Cost
Upgrade Bases for Ground Forces (Modern barracks, mess halls, commissaries, schools, hospitals, family housing, and facilities for morale, welfare, and recreation)	4.7	7.8	0	12.5
Upgrade Main Operating Bases for Aircraft (Many facilities are the same as for bases supporting ground forces)	0.6	0.6	0	1.1
Move the Forces East	0	0	0	0.1
Operate and Support the Bases	0	0	0	0
Close Existing Bases in Germany	0.2	0.3	0	0.5
Total	5.5	8.7	0	14.2

SOURCE: Congressional Budget Office.

NOTE: NATO = North Atlantic Treaty Organization.

Operating and Supporting the Bases

CBO assumed that over time the costs to operate and support bases for air and ground forces in the Visegrad states would be about the same as those in Germany. The cost of living in those nations would probably be below that of Germany, at least for some years until their economies completed the current transitional phase. A lower cost of living makes products purchased from the local economy less expensive. For example, military fuel and utilities for the bases might cost less than in Germany. Alternatively, the dilapidated condition of local Visegrad military bases might increase operation and support costs. CBO assumed that those factors offset each other. Thus, it did not include any additional costs for operations and support for forces that were moved from Germany to the Visegrad states.

Closing Existing Bases in Germany

The bases in Germany housing the two and two-thirds ground divisions and two air wings that would be restationed to the Visegrad nations would have to be closed. Costs would include shutting down the facilities and cleaning up the bases so that they met environmental standards. Each NATO nation would have to pay for the cost of closing down its own bases. CBO estimates the total cost of closing the bases to be \$500 million. The costs to close U.S. bases are estimated at \$200 million.

BOX 1.
NUCLEAR GUARANTEES TO NEW MEMBERS

Article V of the North Atlantic Treaty states that if an alliance member is attacked, each ally will assist that nation by such action as it deems necessary, including the use of armed force. In effect, this assistance includes the use of the nuclear forces of the alliance to shield any member against an attack. During the Cold War, American nuclear weapons were seen as offsetting the quantitatively superior forces of the Warsaw Pact.

According to the September 1995 NATO study on enlarging the alliance, "The coverage provided by Article 5, including its nuclear component, will apply to new members." The study, however, states the following:

There is no a priori requirement for the stationing of nuclear weapons on the territory of new members. In light of both the current international environment and the potential threats facing the Alliance, NATO's current nuclear posture will, for the foreseeable future, continue to meet the requirements of an enlarged Alliance. There is, therefore, no need now to change or modify any aspect of NATO's nuclear posture or policy, but the longer-term implications of enlargement for both will continue to be evaluated. NATO should retain its existing nuclear capabilities along with its right to modify its nuclear posture as the circumstances warrant. . . .¹

Retaining NATO's current nuclear policy seems designed to mitigate Russian sensitivities but at the same time to keep the option to station nuclear weapons in new member states if the threat to them becomes more severe.

Some analysts question, however, whether the United States, to defend the Visegrad states in a post-Cold War world, would be willing to use nuclear weapons--perhaps inviting a nuclear counterattack on the U.S. mainland. In other words, they believe that extending the U.S. nuclear guarantee to cover these states is not credible. They argue that the credibility would be especially lacking if NATO did not station short-range or intermediate-range nuclear weapons on the soil of the Visegrad states and instead relied on U.S. strategic weapons--intercontinental ballistic missiles and submarine-launched ballistic missiles--for a nuclear guarantee to these new members. Other analysts argue that the location of the weapons is less important than the guarantee itself. They maintain that nonstrategic nuclear weapons could be flown in quickly during a crisis. In fact, basing those weapons forward might present a security problem in the event of a conflict or the threat of one.

Yet if NATO's current nuclear policy was changed to deploy nuclear weapons in the Visegrad states, reconstituting the forces to do so might be difficult and expensive. The Intermediate Range Nuclear Forces (INF) Treaty of 1987 led to the removal and destruction of all intermediate-range nuclear missiles based in Europe.

1. North Atlantic Treaty Organization, *Study on NATO Enlargement* (Brussels: NATO, September 1995).

BOX 1.
CONTINUED

Furthermore, in 1991, unilateral actions by the United States and the Soviet Union, under Presidents George Bush and Mikhail Gorbachev, removed and set for destruction all short-range battlefield nuclear weapons (nuclear shells fired from field artillery and short-range nuclear missiles) from Europe.

Because it takes a long time to dismantle nuclear artillery shells, many in the U.S. inventory have not yet been destroyed. If the alliance policy that avoids stationing nuclear forces in new member nations continues for even a few years (new members may not even be formally admitted until the end of the decade or beyond), those short-range weapons will probably have been destroyed. Thus, the United States would have to start manufacturing short-range nuclear weapons again. It would, moreover, incur the costs of reconstituting the production lines to manufacture them and the military units needed to employ them. Any testing of them might be constrained by a comprehensive test ban (CTB), which is currently being negotiated. Manufacturing intermediate-range nuclear missiles and stationing them in Europe would violate the INF treaty.

If the alliance wanted to station nuclear weapons in the Visegrad nations, a more likely alternative would be to use "dual capable" aircraft--that is, aircraft that can deliver both conventional and nuclear weapons. Many tactical fighters can drop air-delivered nuclear bombs, which are still stockpiled in Europe. Thus, CBO assumed that the British and U.S. fighter wings to be stationed in the Visegrad states under Option V could conduct such missions. The existing stockpiles of nuclear bombs would have to be moved from elsewhere in Europe to hardened and secure storage facilities built for them in the Visegrad states; added manpower would be necessary, including that needed for security. CBO estimates that those changes would cost \$2 billion. The costs to the United States are estimated at \$900 million. CBO assumed that NATO would finance the costs of building storage facilities and operating and maintaining them. The costs for adding personnel and moving the weapons would probably be funded by the United States and the United Kingdom.

However, if the stationing of nuclear weapons in the Visegrad states so alarmed Russia that a new nuclear arms race in Europe ensued, the costs to the United States could be much higher. Many new nuclear bombs and nuclear-capable aircraft might have to be manufactured and the units established to employ them, all resulting in increased costs for research and development, procurement, and operations and support. Those developments might undercut existing arms control treaties, those under negotiation (the CTB), and the unilateral actions on short-range weapons undertaken by Presidents Bush and Gorbachev.

Even if the stockpiles of nuclear bombs were not moved into the Visegrad states, the prospect of having nuclear-capable dual-use aircraft stationed in those nations could make Russia uneasy. The Russians might reason that the bombs could be moved quickly into those states during a crisis.

APPENDIX A

EXPANDING NATO BEYOND

THE VISEGRAD STATES

Legislation before the Congress in 1995--the National Security Revitalization Act--stated that Romania, Bulgaria, Albania, the Baltic nations of Estonia, Latvia, and Lithuania, and certain countries in the former Soviet Union and Yugoslavia should be invited to join the North Atlantic Treaty Organization if they could further the principles of the alliance and contribute to the security of the North Atlantic area.

Despite the lengthy list of countries in the legislation, Slovenia, Romania, Ukraine, and the Baltic nations are among the most often mentioned in the public debate as candidates for entry after the Visegrad states. Yet, with the exception of Slovenia, most of those nations would be difficult or costly to defend. The problems that each country would present will be addressed separately.

SLOVENIA

Slovenia is a small mountainous state in the former Yugoslavia that has a contiguous border with one nation now in NATO (Italy). It also borders Austria, Hungary, and Croatia. (See Summary Figure 1.) Because of its economic and political reforms, Slovenia has begun to be mentioned as a possible early entrant.

If Slovenia was attacked, Italian ground and air forces and two squadrons of U.S. aircraft based in Italy could reinforce the country. In any conflict, the Italian air force could fly from Italian air bases, eliminating the need to create colocated operating bases in Slovenia. Because the country is small and mountainous, the Slovenian military might be able to hold an attacker at bay until NATO forces arrived. Because all of Slovenia's neighbors are small (except Italy) and it has reasonably good relations with them, no NATO forces would probably need to be stationed there permanently. In short, NATO could defend Slovenia fairly inexpensively. Yet admitting Slovenia to NATO would carry some risk because of its location in the volatile Balkan region. It was involved in conflict after the former Yugoslavia dissolved.

ROMANIA AND THE UKRAINE

In contrast, Romania and the Ukraine could be very difficult to defend. They have large territories and are not close to NATO forces based in Germany. For example,

unlike moving ground forces east to the Visegrad states, NATO would have difficulty moving forces east to Romania and Ukraine if a threat to those nations occurred. Also, supplying those ground forces over such long distances (800 to 1,000 miles) would be difficult. Thus, the forward stationing of substantial quantities of troops and equipment in those countries might be needed. As noted in Chapter IV, stationing such large forces is expensive and not very flexible, especially if different threats arise than were expected. Although some analysts have cited a fully independent Ukraine as important to Western security, stationing large numbers of NATO troops on a nation bordering Russia and in the territory of the former Soviet Union would certainly be seen by the Russians as threatening. Regardless of whether NATO forces were permanently stationed there, even admitting Ukraine--a neighboring power with large armed forces--could make Russians feel uneasy.

Supplying NATO forces operating in the Ukraine or Romania could be more difficult than supplying such forces stationed in the Visegrad nations. In any war against Russia, the Russians would probably try to interdict supplies--with mines and attacks by submarines and aircraft--moving through the Turkish Bosphorous Strait bound for the Romanian or Ukrainian ports on the Black Sea. In addition, the Russian Black Sea fleet might contest control of that body of water.

Of course, rather than reinforcing and resupplying those nations, NATO could provide them with equipment to defend themselves. But as new members of NATO with an Article V guarantee, those nations might expect more from the alliance.

THE BALTIC STATES

Estonia, Latvia, and Lithuania are geostrategically important for Russia. They border Russia and sit astride the Baltic Sea and the Gulf of Finland--the only water route to St. Petersburg, Russia's second largest city. Admitting them to NATO might be seen by Russia as provocative. In addition, defending those states would be difficult for NATO. They are small nations with no strategic depth. A Russian attack would overwhelm them quickly, probably forcing NATO to launch an amphibious assault backed by air strikes from carrier battle groups in the Baltic Sea to retake them. The U.S. Navy, however, might have reservations about sending amphibious ships and carrier battle groups into the confined waters of the Baltic Sea where a preponderance of land-based Russian air power is nearby. Resupplying forces in the Baltic Sea or the Baltic states might be difficult if the Danish Straits were closed by mines and attacks by submarines and aircraft.

Even permanently stationing NATO ground forces in the Baltic states might not ensure an effective defense. The small size of those nations limits the number of

NATO forces that could be stationed there. Much larger Russian forces nearby could easily overwhelm forces that would have few routes of retreat. Stationing NATO forces in the Baltics could deter the Russians from attacking in the first place but could be seen by them as threatening.

Admitting the Baltic states might entail much risk for NATO and little reward. Although those states are undertaking political and economic reform, their gross domestic products are small and their precarious security situation could draw the alliance into a conflict with Russia.

APPENDIX B

ANALYZING THE SECURITY SITUATION

IN THE VISEGRAD STATES:

TERRAIN, GEOGRAPHY, AND ARMED FORCES

Each of the Visegrad states faces a unique security situation that results from its geography, its terrain, and the current state of its military forces and defense budget (for a summary of each nation's security situation, see Tables B-1 through B-4). A comparison of their security situations is in order.

TERRAIN AND GEOGRAPHY

Although the overall threat to the Visegrad region is currently low, Hungary probably has the most security concerns, and the Czech Republic has the fewest. The situations of Poland and Slovakia rest somewhere in between.

Hungary

Hungary's security situation is problematic. It is a mostly flat country surrounded by the nations of Ukraine, Slovakia, Austria, and Slovenia. Hungary also borders Croatia, Serbia, and Romania. Bordering the unstable former Yugoslavian republics of Croatia and Serbia creates the most immediate risk for Hungarian security. The war in the former Yugoslavia spilled over into Hungary when the Serbs bombed a Hungarian border town. In addition, Serbia has a Hungarian minority and the rights of that group might become an issue in the future. Slovakia and Romania also have large Hungarian minorities. As noted earlier, Slovakia and Hungary have recently signed an agreement on the issue of minority rights. Although the Hungarian and Romanian militaries cooperate, the civilian leaderships of the two nations have not been able to settle the minority question.

Finally, any defense of Hungary might be difficult if Slovakia was not also admitted into the alliance. Without Slovakia, Hungary would not be contiguous with any other nation in the North Atlantic Treaty Organization. Because Hungary has no sea coast, NATO forces and supplies would have to come by air unless Slovakia or neutral Austria would consent to let them pass through their territories. (For NATO's peacekeeping mission in Bosnia, such military assets were allowed to pass overland. Whether that arrangement would be allowed during a regional war, however, might be more uncertain.)

Poland

Although no major threat now exists to Poland's security, the nation's terrain and geography make it particularly vulnerable should one develop. Poland is the most strategically located Visegrad state. Germany--Poland's western neighbor--is concerned about security and stability there. That concern will become even more important as Germany's seat of government is moved from Bonn to Berlin, which is near the Polish-German border. Because Poland is flat, it has historically been an invasion route through Europe between Central and Western European states and Russia. Because of its open terrain, large area, and long exposed borders (over 500 miles), Poland could be hard to defend against an assault of heavy armored forces. But as noted earlier, if Russia chose to launch an offensive against Poland, it would have to do so through Lithuania, Ukraine, or Belarus.

Slovakia

Slovakia is strategically located in East Central Europe, but its security is enhanced by mountainous terrain. If the Visegrad states became members of NATO, Slovakia would border three NATO neighbors (Poland, the Czech Republic, and Hungary), neutral Austria, and the Ukraine. Slovakia's eastern border with the Ukraine is only about 50 miles long. In short, because of the rugged terrain and the channeling of any attacker onto a narrow front, Slovakia could be defended fairly easily from an attack either by or through the Ukraine. Slovakia recently enhanced its security by signing a treaty that ended a long-standing dispute with Hungary on the rights of the Hungarian minority living in Slovakia.

Czech Republic

Of the Visegrad states, the Czech Republic probably has the fewest security concerns. It is mostly highlands, with some mountains. If all four Visegrad states were absorbed into NATO, the Czech Republic would be bordered by three NATO states (Slovakia, Poland, and Germany) as well as neutral Austria. Thus, unless tensions increase with Slovakia, the outlook for Czech security seems promising.

ARMED FORCES

A nation's security depends on the state of its armed forces, as well as its terrain and its neighbors. The armed forces of all Visegrad states are shrinking. They have obsolescent equipment and low states of readiness. Of the Visegrad states, Poland will

have by far the largest and most capable armed forces (see Table B-5 for a comparison of the future force goals of those states).

Because the Warsaw Pact alliance oriented its forces westward toward NATO during the Cold War, after that ended, most of the forces in the Visegrad nations were in the western parts of those nations. Most of the Visegrad states want to spread their forces more evenly throughout their territories in a "360-degree defense." The Czech Republic and Hungary have been more successful than Poland. To date, Poland has redeployed only a small number of its forces eastward. Building new military facilities in eastern Poland would be expensive. Likewise, after the split of the Czechoslovakian military, Slovakia--in the eastern part of the old territory--has few hardened military facilities. Such facilities would have to be built.

In addition, the Czech Republic and Hungary have their forces arrayed in more mobile independent brigades. Poland and Slovakia have not yet completed such a reorganization. Poland is converting and Slovakia plans to convert its forces, now organized in Soviet-style divisions, into such brigades. All of the Visegrad militaries are creating forces capable of peacekeeping, as well as rapid-reaction forces to allow quicker responses to crises.

DEFENSE SPENDING

In addition to reducing the size of their armed forces since the end of the Cold War, all of the Visegrad states have dramatically shrunk their spending on defense. For example, Hungary's spending has dropped almost 60 percent since 1988, and Poland's spending has decreased 44 percent since 1987. Spending on defense in the Visegrad region is low, ranging from Slovakia's \$400 million per year to Poland's \$2.4 billion per year, more than twice any other nation in the region (see Table B-5 for a comparison of defense spending in the Visegrad nations).

DEFENSE INDUSTRIES

Like the militaries of the Visegrad states, their defense industries are obsolescent and face an uncertain future. Both military exports and domestic budgets for defense procurement have declined. A well-known defense publication argues that the defense sectors of the Visegrad nations--geared to produce heavy offensive weaponry

for the Warsaw Pact--will not be able to manufacture defensive weapons incorporating the high technology needed for the post-Cold War environment.¹

CONCLUSION

The security situation in each Visegrad nation, the state of its armed forces, and the size of its defense budget will affect the amount of help it can provide to NATO in any defense concept chosen for an expanded alliance. In developing options for the defense of those nations, CBO recognized that despite their likely contribution of small contingents of forces for peacekeeping operations, the Visegrad nations will be net consumers of NATO security. In fact, spending for peacekeeping cuts into what few resources they have to spend on their defense. Their shrinking forces are obsolescent and not ready to fight. After the Cold War, one of the most heavily armed regions of the world has reduced its armaments and military forces dramatically.

1. Brigitte Sauerwein, "Focus on East Central Europe," *International Defense Review* (September 1994), p. 14.

TABLE B-1. SECURITY SITUATION OF POLAND

Borders	Germany, Czech Republic, Slovakia, Ukraine, Belarus, Lithuania, and Russia
Terrain and Geography	Large area with long borders and mostly flat terrain
Composition of the Military	Ground forces: 11 divisions, four independent brigades Air forces: Seven regiments of tactical aircraft for air defense, four regiments for ground attack Naval forces: One destroyer, one frigate, four corvettes, 24 mine-clearing ships, seven missile craft, 22 patrol boats, three coastal boats, and three submarines
Trends in the Military	295,000 personnel in 1990 being reduced to 145,000 in 2000
CFE Limits	Tanks: 1,730 Armored combat vehicles: 2,150 Artillery pieces: 1,610 Aircraft: 460 Helicopters: 130
Defense Spending	Currently: \$2.4 billion in 1995 or 2.4 percent of GDP Future goal: 3 percent of GDP
Defense Industry	Produces tanks, armored vehicles, rocket artillery, small arms, radars, aircraft trainers, cargo aircraft, helicopters, frigates, landing craft, and mine-clearing vessels

SOURCE: Congressional Budget Office based on data provided by the Department of Defense, *The Military Balance* (1995/1996), and other sources.

NOTE: CFE = Treaty on Conventional Forces in Europe; GDP = gross domestic product.

TABLE B-2. SECURITY SITUATION OF THE CZECH REPUBLIC

Borders	Germany, Austria, Slovakia, and Poland
Terrain and Geography	Mostly highlands with some mountains
Composition of the Military	Ground forces: Eight brigades Air forces: One regiment of tactical aircraft for air defense, three regiments for ground attack
Trends in the Military	140,000 personnel in 1993 being reduced to 55,000 in 2000
CFE Limits	Tanks: 957 Armored combat vehicles: 1,367 Artillery pieces: 767 Aircraft: 230 Helicopters: 50
Defense Spending	Currently: \$1.1 billion in 1995 or 2.5 percent of GDP Future goal: Same percentage of GDP
Defense Industry	Produces world-class electronic warfare equipment and aircraft for training; also produces small arms

SOURCE: Congressional Budget Office based on data provided by the Department of Defense, *The Military Balance* (1995/1996), and other sources.

NOTE: CFE = Treaty on Conventional Forces in Europe; GDP = gross domestic product.

TABLE B-3. SECURITY SITUATION OF SLOVAKIA

Borders	Poland, the Czech Republic, Austria, Hungary, and Ukraine
Terrain and Geography	Small area with short borders and mountainous terrain
Composition of the Military	Ground forces: One division Air forces: One regiment of tactical aircraft for air defense, one regiment for ground attack
Trends in the Military	70,000 personnel in 1993 being reduced to 35,000 in 2000
CFE Limits	Tanks: 478 Armored combat vehicles: 683 Artillery pieces: 383 Aircraft: 115 Helicopters: 25
Defense Spending	\$400 million or 3.1 percent of GDP
Defense Industry	Specializes in producing tanks, armored vehicles, and artillery

SOURCE: Congressional Budget Office based on data provided by the Department of Defense, *The Military Balance* (1995/1996), and other sources.

NOTE: CFE = Treaty on Conventioinal Forces in Europe; GDP = gross domestic product.

TABLE B-4. SECURITY SITUATION OF HUNGARY

Borders	Austria, Slovenia, Croatia, Serbia, Romania, Ukraine, and Slovakia
Terrain and Geography	Small, mostly flat nation
Composition of the Military	Ground forces: 12 brigades Air forces: Three regiments of tactical aircraft for air defense
Trends in the Military	95,000 personnel in 1990 being reduced to 50,000 in 2000
CFE Limits	Tanks: 835 Armored combat vehicles: 1,700 Artillery pieces: 840 Aircraft: 180 Helicopters: 108
Defense Spending	Currently: \$600 million in 1995 or 1.5 percent of GDP Future goal: Little possibility of increasing in the near future
Defense Industry	Specializes in producing communication and electronic systems; produces no major weapon systems

SOURCE: Congressional Budget Office based on data provided by the Department of Defense, *The Military Balance* (1995/1996), and other sources.

NOTE: CFE = Treaty on Conventional Forces in Europe; GDP = gross domestic product.

TABLE B-5. COMPARING THE SIZE OF VISEGRAD ARMED FORCES AND DEFENSE BUDGETS

Country	Force Goal (Number of Troops)	1995 Defense Budget (Billions of dollars)	Defense Budget as a Percentage of GDP
Poland	145,000	2.4	2.4
Czech Republic	55,000	1.1	2.5
Hungary	50,000	0.6	1.5
Slovakia	35,000	0.4	3.1

SOURCE: Congressional Budget Office based on data from the Department of Defense and the Visegrad governments.

NOTE: GDP = gross domestic product.